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JANUARY
1949

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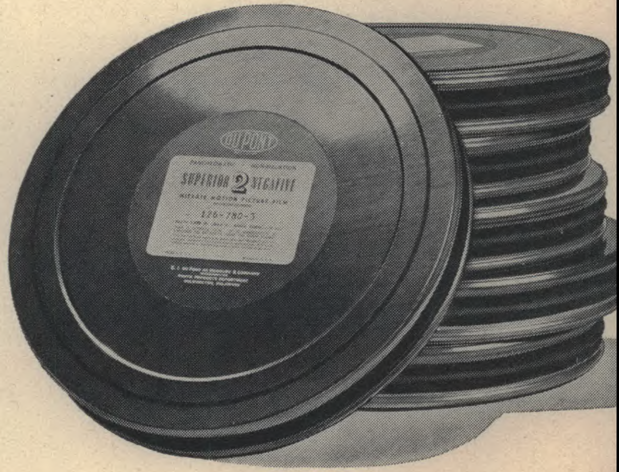

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Hollywood Bulletin Board

ACADEMY AWARDS—Preliminary nominating ballots have been mailed to all members of the A.S.C. by the Academy of Motion Picture Arts and Sciences, marking the initial step in the annual procedure of selecting the motion pictures, and the artists and technicians involved in their making, to be awarded "Oscars" by the Academy next March.

Hollywood's cinematographers are again placing emphasis on the importance of impartial and careful consideration of every picture nominated for the annual Photographic Awards. They are determined that only the best job of photography, regardless of personalities, politics or propaganda, shall decide the winners of the coveted "Oscars." This determination is commendable and certain to have a salutary influence of benefit to those directors of photography, without whose camera artistry the year's best pictures might have fallen far short of success.

Leading cinematographers have emphasized that it is incumbent upon every cinematographer privileged to aid in the selection of Academy Award nominees, to see every nominee-production, to re-review it if necessary, so that he shall not be in doubt when the time comes to mark his nominating and subsequent voting ballots.

•

AT THE TOP of *Film Daily's* "Ten Best Pictures For 1948," based on results of a poll conducted among 508 representative motion picture critics, reviewers, etc., is "Gentlemen's Agreement," with "Johnny Belinda," and "I Remember Mama," following in that order. By comparison, the New York Film Critics voted "Treasure Of The Sierra Madre" tops for 1948, naming "Hamlet" second and "Snake Pit" third.

•

METRO-GOLDWYN-MAYER will put 14 new pictures before cameras between January 1st and March 30th, making that studio one of the busiest in Hollywood (or Culver City, if you will). New program of accelerated production follows a series of conferences between L. B. Mayer and Dore Schary, studio's new production head. Plans call for seven or eight pictures to be in production simultaneously on the lot throughout 1949.

•

CLYDE DE VINNA, A.S.C., is in India investigating studio facilities, making tests of natives, and selecting locations for Oriental-International Company's forthcoming production of Rumer Godden's novel, "The River." Picture will be filmed on Eastman monopack and processed by Technicolor.

•

CHARLES CLARK, A.S.C., commenced his assignment of filming 20th Century-Fox's "Slattery's Hurricane" in the Florida hurricane country, where he photographed important sequences the early part of December. Finishing the location shots ahead of schedule, Clark arrived back in Hollywood in time to spend Christmas with his wife and family.

•

LLOYD KNECHTEL, A.S.C., absent a year from Hollywood, reported back the early part of December after completing the photography for "Alice In Wonderland," combination live action and animation feature produced in France. Entire production was filmed in Ansco Color, and in order that he might complete all the trick work, Knechtel had an optical printer shipped to Paris from the United States. The picture is slated for early release through the Rank organization.

•

ELMER DYER, A.S.C., is in the Veterans Hospital at Sawtelle, California, for treatment of a minor ailment aggravated by the rigors of his recent photographic assignment, which called for night flying in blinding fog to photograph effects of a FIDO (fog dispersal) system installed on a government airfield.

•

LEE GARMES, A.S.C., succeeded the late Gregg Toland as director of photography on "Roseanna McCoy" at the Samuel Goldwyn Studios, and carried out Toland's original ideas for shooting the entire picture with "pin point" lens apertures to obtain extreme depth of focus.

•

JOHN ALTON'S life is just one picture after another. This hard working A.S.C. member now shooting "The Crooked Way," has completed the photography on ten feature pictures within 14 months. A record.

•

THE FUNCTIONS OF the A.S.C. and particularly the importance of cinematography by its members has been revealed to the public on a number of radio programs originating in Hollywood during recent months. Both James Wong Howe, A.S.C., and John W. Boyle, A.S.C., have appeared as guest stars on Maury Web-

(Continued on Page 34)

. . . the cycle, and a panacea

"MUCH has been said the past several weeks about cutting the cost of motion picture production. Prominent film officials have been quoted as saying that salaries must come down, from star to the property boy.

"It has been intimated that if it is not graceful to cut existing salaries there will be made substitutions, wherever possible, of workers who are content with smaller salaries.

"The effect of rigid execution of such a theory if it is ever followed, remains to be seen. Perhaps the exercise of parts of the theories might bring wanted results. But there is one element in the cost of production that is seldom reckoned with, and that is the waste and loss of time. Few of the executive statements, which were published in the spirit of alarm by most of the press, took this important factor into consideration.

"Has the average executive ever stopped to compute how many dollars are lost to his organization because salaries and rentals were running on and mounting up because some company or companies working under his banner were marking time when they should be shooting? The loss thus occasioned includes within its scope the salary of not only one high-priced celebrity, but that of all the workers in the company."

Sound familiar? Well it just goes to show that conditions repeat themselves, in cycles. The foregoing was written in January, 1924, as the opening paragraphs of an editorial in the AMERICAN CINEMATOGRAPHER for that month, and reflects the troubled times besetting cameramen and studio workers 25 years ago.

Today, as then, the remedy for the producer's troubles lies not in cutting salaries nor in shuttering the studios, but in more economical production methods. That this has already been discovered is evidenced by a stirring of new production activity in many of the major studios.

★

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Editorial and Business Office: 1782 N. Orange Dr., Hollywood 28, Calif.
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CONTENTS

Articles

PHOTOGRAPHING FILMS FOR TELEVISION—*By Walter Strenge, A.S.C.* . . . 9
CHANGING TRENDS IN CINEMATOGRAPHY—*By Herb A. Lightman* . . 10
FROM MUSIC TO MOVIES—*By Arthur Rowan* 11
MODERN TITLE MAKING—*By Norman Keane* 12
COLOR AND COLOR REPRODUCTION—*By Dr. Herbert Meyer* . . . 13
A SYNCHRONOUS MAGNETIC RECORDER—*By Ralph Lawton* . . . 14

Features

HOLLYWOOD BULLETIN BOARD 4
CURRENT ASSIGNMENTS OF A.S.C. MEMBERS 6
CINE KINKS 22
25 YEARS AGO WITH A.S.C. AND MEMBERS 26

16mm. & 8mm. Section

PUPPETS STAR IN BUDGET TELE FILMS—*By Charles Loring* 17
FILMING THE HARVESTER ANT—*By Warwick Tompkins* 18
SOUTH SEAS SAGA—*By Charles Allmon* 20

ON THE COVER

WILLIAM SNYDER, A.S.C., (in checkered shirt) looks on while director Henry Levin (back to camera) rehearses Larry Parks and Barbara Hale in a scene for Columbia Pictures' current production, "Jolson Sings Again," sequel to "The Jolson Story." Filmed in Technicolor, the picture is enhanced by the same outstanding photography which William Snyder contributed to "Loves Of Carmen," and "The Return Of October."

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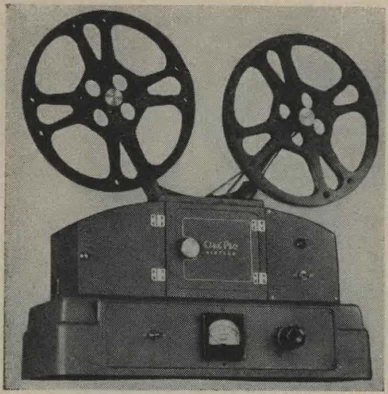

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Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month.

Columbia

- WILLIAM E. SNYDER, "Jolson Sings Again," (Technicolor) with Larry Parks, Barbara Hale and William Demerest. Henry Levin, director.
- ARCHIE STOUT, "Greed," with Glenn Ford, Ida Lupino and Gig Young. S. Sylvan Simon, director.
- VINCENT FARRAR, "Night In Havana," with Desi Arnaz and Mary Hatcher. Jean Yarbrough, director.
- BURNETT GUFFY, "All The King's Men," (Robt. Rosson Prodn.) with Broderick Crawford and Joan Dru. Robert Rosson, director.
- HENRY FREULICH, "Secret of St. Ives," with Richard Ney; and Vanessa Brown. Phil Rosen, director.
- CHARLES LAWTON, "Hounded," with George Raft, Nina Foch and George Macready. Ted Tetzlaff, director.

Independent

- STANLEY CORTEZ, "The Man on the Eiffel Tower," (Allen & Tone) (Shooting in Paris on Ansco Color) with Charles Laughton, Franchot Tone, Burgess Meredith, et al. Irving Allen, director.
- LEE GARMES, "Roseanna McCoy," (Goldwyn-RKO) with Farley Granger and Joan Evans. Irving Reis, director.
- PHILLIP TANNURA, "Shamrock Hill," (Vinson-Equity) with Peggy Ryan and Ray McDonald. Arthur Dreifuss, director.
- GUY ROE, "Amazon Quest," (Agay Prodns.) with Tom Neal and Carole Mathews. S. K. Seely, director.

M-G-M

- GEORGE FOLSEY, "The Great Sinner," with Gregory Peck and Ava Gardner. Robert Siodmak, director.
- HAL ROSSON, "The Stratton Story," with with James Stewart and June Allyson. Sam Wood, director.
- CHARLES ROSHER, "Neptune's Daughter," (Technicolor) with Red Skelton and Esther Williams. Edward Buzzell, director.
- HARRY STRADLING, "In The Good Old Summer Time," (Technicolor) with Judy Garland and Van Johnson. Robert Z. Leonard, director.
- CHARLES SCHOENBAUM, "Highland Lassie," with Lassie and Edmund Gwenn. Richard Thorpe, director.
- ROBERT PLANCK, "Madame Bovary," with Jennifer Jones, Louis Jourdan and James Mason. Vincente Minnelli, director.
- JOE RUTTENBERG, "Forsyte Saga," with Greer Garson, Errol Flynn, Walter Pidgeon, Robert Young and Janet Leigh. Compton Bennett, director.

Monogram

- WILLIAM SICKNER, "Riverboat Rhythm," with Jimmie Davis and Veda Ann Borg. Derwin Abrahams, director.
- WILLIAM SICKNER, "Murder In The Air," with Roland Winters, Keye Luke and Elena Verdugo. Lesley Selander, director.
- HARRY NEUMANN, "Outlaw Marshal," with Johnny Mack Brown and Gerry Pattison. Ray Taylor, director.

Paramount

- GEORGE BARNES, "Samson & Delilah," (Technicolor) with Hedy Lamarr and Victor Mature. Cecil B. DeMille, director.
- CHARLES B. LANG, JR., "Easy Does It," with Bob Hope and Rhonda Fleming. Alexander Hall, director.
- LIONEL LINDON, "Top O' The Morning," with Bing Crosby, Ann Blyth and Barry Fitzgerald. David Miller, director.
- ERNEST LASZLO, "Manhandled," (Pine-Thomas) with Dorothy Lamour and Sterling Hayden. Lewis R. Foster, director.

R-K-O

- HARRY WILD, "Sam Wynne," with Martha Scott and Jeffrey Lynn. Will Price, director.
- ROBERT DE GRASSE, "It's Only Money," with Frank Sinatra, Jane Russell and Groucho Marx. Irving Cummings, Sr., director.

20th Century-Fox

- LEON SHAMROY, "Prince Of Foxes," (Shooting in Italy) with Tyrone Power, Orson Welles and Wanda Hendrix.
- RUSSELL HARLAN, "I Was A Male War Bride," (Shooting In Germany) with Cary Grant and Ann Sheridan. Howard Hawks, director.
- NORBERT BRODINE, "Hard Bargain," with Richard Conte and Valentina Cortese. Jules Dassin, director.
- LLOYD AHERN, "Mr. Belvedere Goes To College," with Clifton Webb and Shirley Temple. Elliott Nugent, director.
- ARTHUR ARLING, "You're My Everything," (Technicolor) with Anne Baxter, Dan Dailey and Anne Revere. Walter Lang, director.
- CHARLES CLARKE, "Slattery's Hurricane," with Linda Darnell, Veronica Lake and Richard Widmark. Andre DeToth, director.
- JOSEPH LASHELLE, "Come To The Stable," with Loretta Young, Celeste Holm and Elsa Lanchester. Henry Koster, director.
- JOSEPH MACDONALD, "It Happens Every Spring," with Ray Milland and Jean Peters. Lloyd Bacon, director.
- MILTON KRASNER, "East Side Story," with Richard Conte, Susan Hayward and Edward G. Robinson. Joseph Mankiewicz, director.

United Artists

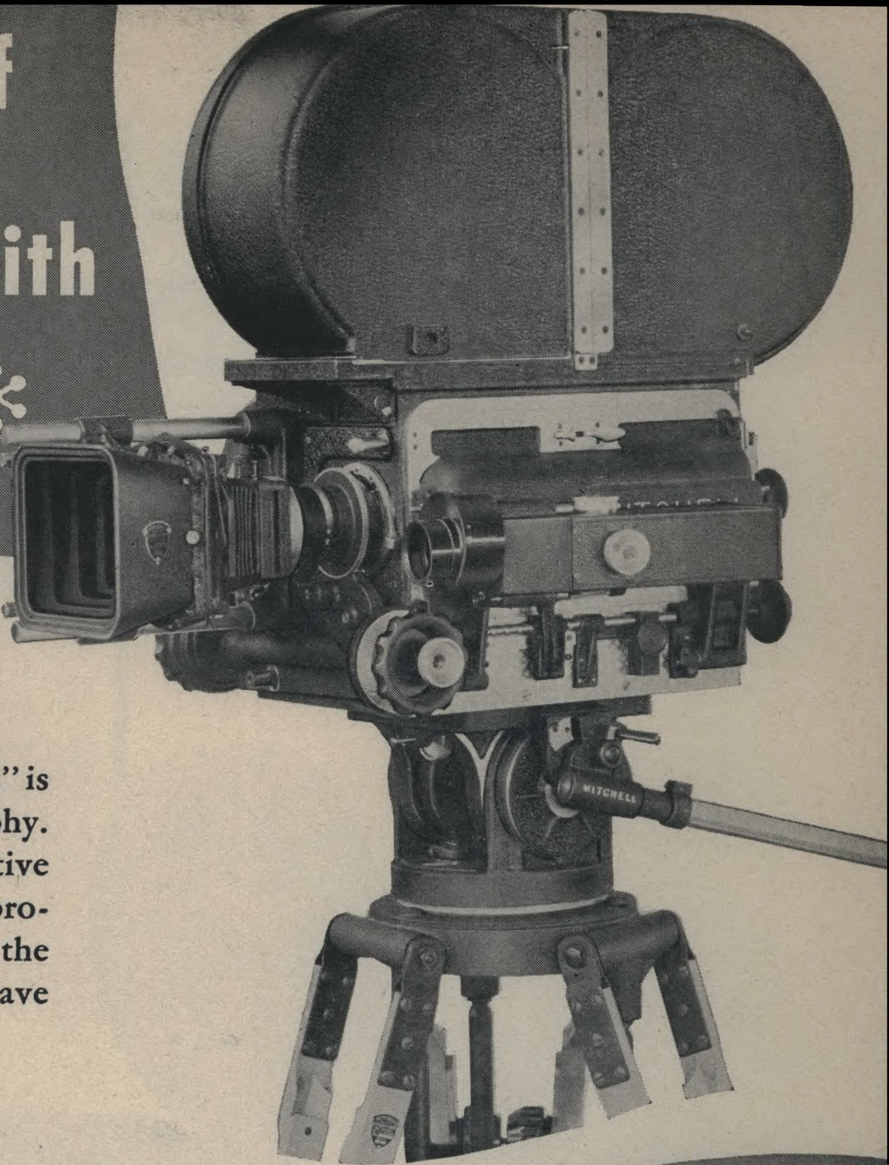
- ERNEST LASZLO, "Impact," (Popkin-U-A) with Brian Donlevy and Ella Raines. Arthur Lubin, director.
- GILBERT WARRENTON, "Dan Patch," (Frank-U.A.) with Dennis O'Keefe and Gail Russell. Joe Newman, director.
- FRANK PLANER, "Champion," with Kirk Doulgas and Marilyn Maxwell. Mark Robson, director.
- JOHN ALTON, "The Crooked Way," (Bogeaus-UA) with John Payne, Ellen Drew and Sonny Tufts. Robert Florey, director.
- LESTER WHITE, "The Daring Caballero," (Inter-Amer. Prodns.) with Duncan Renaldo, Leo Carrillo and Kippee Valez. Charles Barton, director.

Universal-International

- MAURY GERTSMAN, "Ma And Pa Kettle," with Marjorie Main and Percy Kilbride. Charles Lamont, director.

(Continued on Page 34)

The great films of Today are shot with a *Mitchell**



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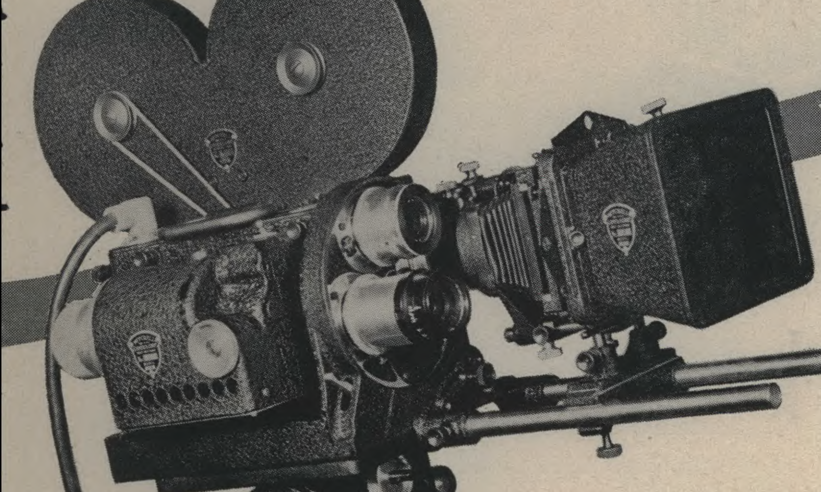

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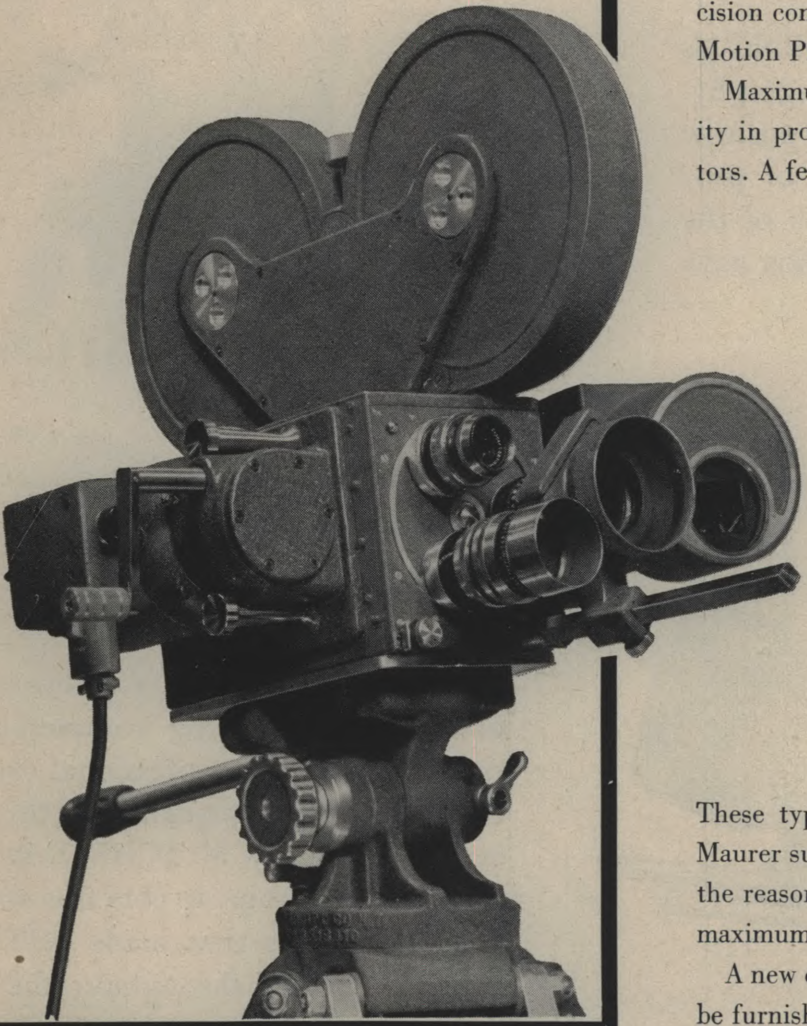

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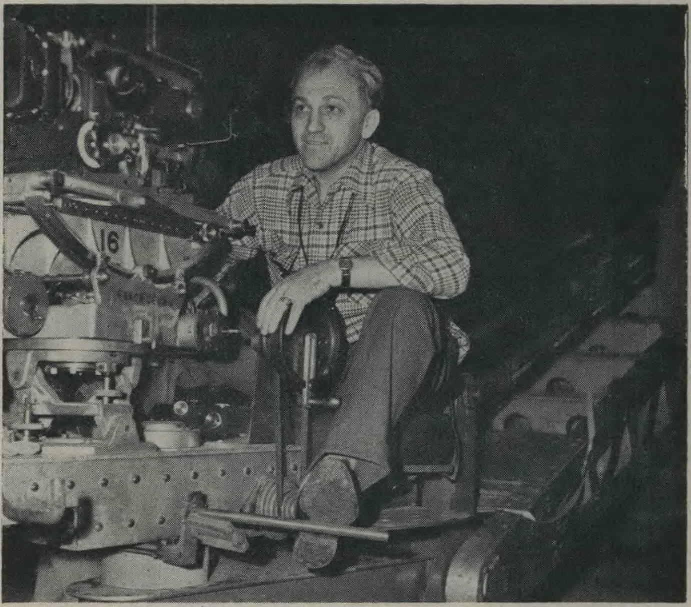
THERE ARE NO secret formulas for the photography of films for television. Actually, what constitutes clear, straightforward photography for theatrical motion pictures is the type best suited for television. This is aptly demonstrated, I believe, in the series of filmed commercial announcements for Westinghouse Electric Company which I recently photographed for Roland Reed Productions. We used basic lighting and camera techniques and the results on video screens have been declared far superior to live commercials produced in the television studios.

A great deal has been said—and written—about the role motion pictures will play in advancing television to the stage where it will pay its way. Already, however, motion pictures have demonstrated their importance as the logical medium for the spot commercial announcement, combining actual demonstration of a product or article with the sponsor's narrated message.

Were it not for human fallibility to "fluff" a line or routine occasionally, and invariably at a most critical moment, perhaps this new enterprise of producing filmed commercials for television might never have begun. Whereas "fluffs" on radio are less objectionable and quite often go undetected by the listener, they are dynamite to television where the audience sees all as well as hears it.



WALTER STRENGE, A.S.C., used the same camera and lighting equipment for photographing the series of one minute spot commercials, plugging Westinghouse's new Laundromat, as used in standard studio film production. Shot with a Mitchell 35mm. camera, the films were reduced to 16mm. for pickup by the television camera.

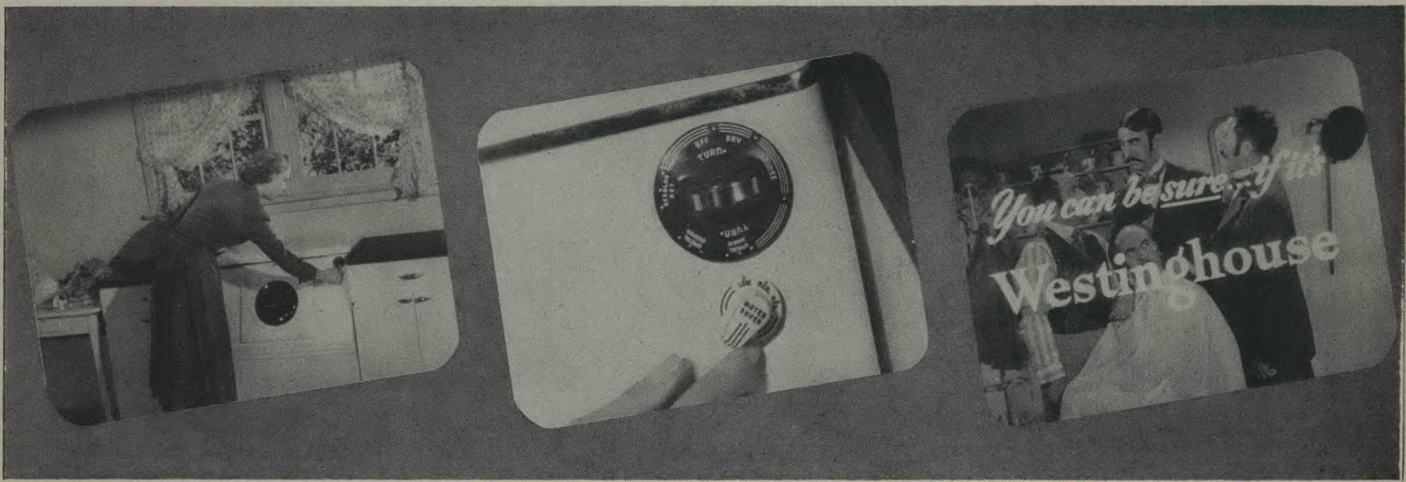
Photographing Films For Television

To appreciate the value of the filmed television commercial, one need only to imagine how ridiculous an advertiser would be made to appear if a video demonstration of, say, chip-proof glassware accidentally produced a chip or broke in actual demonstration before the live television camera. So, to insure against such accidents, more and more product demonstrations are being carefully rehearsed and recorded in motion pictures, then televised from film.

(Continued on Page 26)

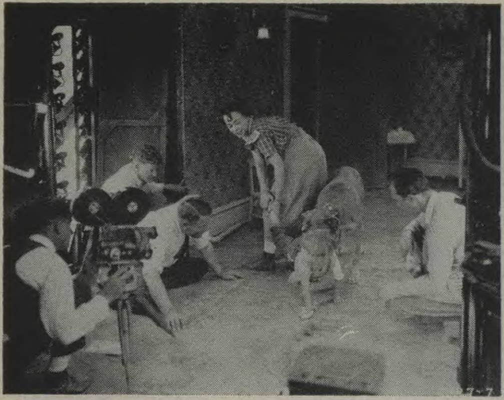
Filmed spot announcements for TV sponsors set pattern for wider use of films in television. Here are some facts about their production revealed by a man who has photographed them.

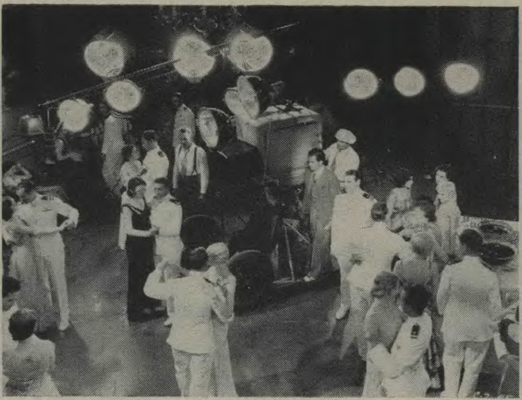
By WALTER STRENGE, A.S.C.

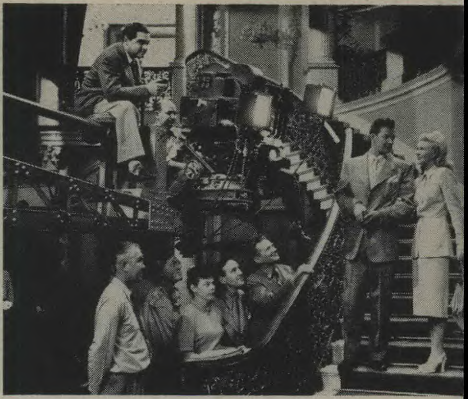


THREE frame enlargements from series of spot announcement films produced by Roland Reed for Westinghouse Electric Co. The first shows typical lighting demanded for television films while center frame illustrates the tight closeups of products or demonstrations necessary for maximum results on video screens. Third frame illustrates a major advantage of filmed commercials—the sponsor's message superimposed over live action which adds further visual impact to the presentation.

—Photos courtesy Roland Reed Productions


SHOOTING a Mack Sennett comedy, circa 1918, using hand cranked Bell & Howell camera and Cooper-Hewitt mercury lights. Fred W. Jackman, A.S.C., is directing the scene.


ADVENT of sound saw first general use of mobile camera. Shown here is one of the first camera dollies. Note inky floodlights and the improvised blimp for camera.

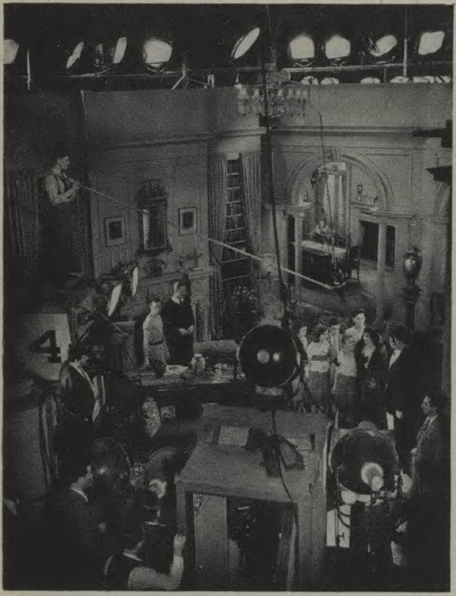

SCOPE of cinematography was greatly broadened with development of the camera crane, which gave impetus to the moving camera technique. (V. Farrar, A.S.C., behind camera.)

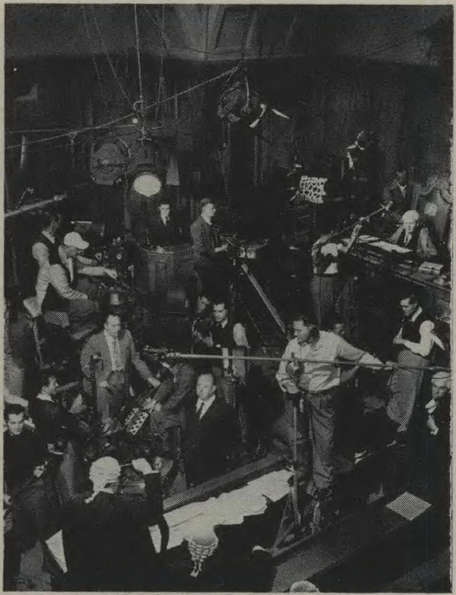
Changing Trends In Cinematography

Ever since the days of Mack Sennett comedies, directors of photography have successfully adapted camera techniques to meet demands of changing trends in movie entertainment.

By HERB A. LIGHTMAN

IN THE NICKLEODEON days of the motion picture industry, when cameras were cranked by hand, cinematography was not thought of as an art. Even the cameraman who cranked the camera considered it a purely mechanical process for getting an animated image onto film. Such words as "style" and "technique" had not yet become studio parlance, and the cameramen were much too concerned with sunlight and exposure to worry about any possible esoteric undertones that showed up in their camerawork.


BEFORE days of camera blimps, cinematographers operated cameras from within soundproofed booths when shooting scenes for "talkies." Called "sweatboxes" by the cameramen, booths were unventilated, unwieldy and destined for early discard. Note "human mike boom" atop one booth.


COMPARE this scene with one at left. Here three Mitchell cameras, soundproofed with blimps, are shooting a scene for "The Paradine Case," photographed by Lee Garmes, A.S.C. Mike placement has been greatly simplified by use of latest type multidirectional boom equipment.

When the motion picture began to evolve from the sideshow stage and acquired a certain dignity as an accepted form of entertainment, the cameramen had time to take a deep breath and examine the methods they were using. There had been a great deal of trial and error on the sets, and now most cameramen were able to establish a technique by standardizing the methods that worked and discarding those that didn't. They developed working formulas on the assumption that if you did thus and so, the result would be thus and so.

But this new-found technique still remained an almost purely mechanical thing. While it was granted that acting and direction might be characterized by a certain style, camerawork was not thought of as having any aesthetic potentialities of its own. The camera was merely there to record the action, and the cameraman to run the camera.

It was about this time that the late D. W. Griffith decided to produce his immortal "Birth of a Nation." His creative imagination soared beyond the limits of the established camera technique of that day. He wanted to produce a film of epic proportions, and he knew that in order to capture the scope of his screen story on film he would have to create a new scope for the hitherto limited camera. He developed the close-up, an unheard of angle, to bring his audience

MORE recently, the helicopter has been used to augment the camera crane in obtaining smooth trucking shots from higher elevations. Paul Ivano, A.S.C., used one for "Johnny Belinda."

close to the players and their emotions; he put the camera on a wagon and used moving-camera shots to follow the fluid action which he staged; he used angle shots to give his scenes perspective and point-of-view. The sum total of his camera approach to this film amounted to a veritable artistic revolution within the motion picture industry. No longer was motion picture photography a robot process; it now became an *art.*

Since that time, the art of cinematography has developed to the point where it ranks with the most important crafts of motion picture production. The Director of Photography holds the unique dual position of artist-technician (with emphasis on the *artist*). The industry, becoming conscious that art in the motion picture was inseparably bound up with mechanical processes, established the Academy of Motion Picture Arts and Sciences to promote technical research and establish mechanical standards for the industry.

Meanwhile, the cameramen, resolving to develop the art of the camera to its fullest, founded the American Society of Cinematographers, one of the prime functions of which was to promote individual and group research amongst the cameramen themselves. Moreover, the results of this experimentation were to be used for the betterment of the profession and the motion picture industry as a whole. Down through the years the men of A.S.C. have upheld this resolve and have worked tirelessly to develop motion picture photography to the precise art that it is today.

It is interesting to note the changing trends in cinematography which have taken place since photographs first began to move. Many of these have been purely mechanical, spurred on by technical prog-

(Continued on Page 32)

From Music To Movies

William Snyder, A.S.C., abandoned a promising musical career to become a cinematographer. Meet the cameraman on the cover, currently photographing "Jolson Sings Again."

By ARTHUR ROWAN

NO ONE who has witnessed the superb photography of "Loves Of Carmen," will deny its potentials as an Oscar winner in the color photography division, when Academy Awards are announced next March. And the man who very likely may be called to the rostrum to receive that Oscar is William Snyder, A.S.C., who currently is lending his Technicolor artistry to the Columbia Pictures' production, "Jolson Sings Again."

An Oscar winner or not—and there's some pretty stiff competition this year—there can be no denying that Snyder's name belongs among those at the top of the list of ace Technicolor cinematographers. And for good reason. Snyder was for ten years one of Technicolor Corporation's top cameramen.

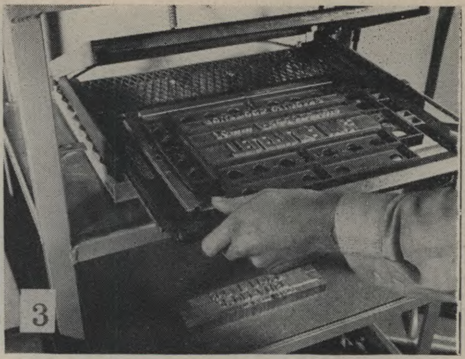
Bill Snyder got into the profession of cinematography quite by accident. Years ago he came out to Hollywood from New York to spend a six weeks vacation and stayed six years. Friends had urged him to give up his musical career and get into the picture business. One introduced him to John Arnold, at M.G.M., and within a short time Snyder was employed loading cameras there. It must have been his natural artistic instincts that led to his taking an interest in photography, for it wasn't long before Snyder had worked his way up to second cameraman, assisting on such productions as "The Floradora Girl," and "The Thirteenth Chair."

(Continued on Page 22)

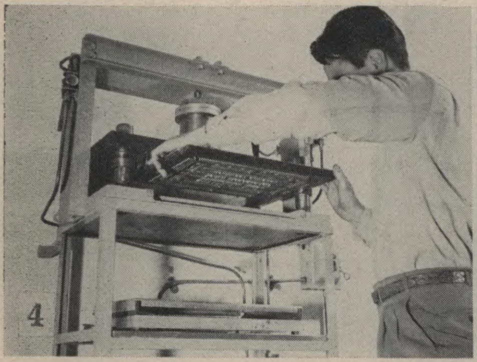
WILLIAM SNYDER'S impressive camera work marks many of Columbia Picture's recent outstanding Technicolor productions. Here, standing at right of camera, Snyder watches Larry Parks and George Macready enact a stirring sword battle for "The Swordsman." Parks also stars in Snyder's current picture assignment, "Jolson Sings Again."

Title is set in type,

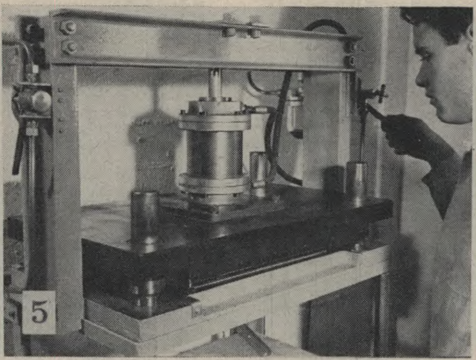
. . . then locked in chase,



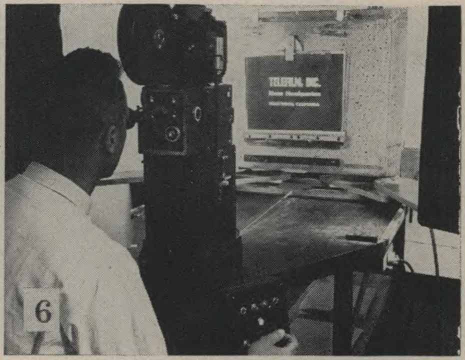
. . . pre-heated to set the ink,



. . . type is placed in press,



. . . the impression made,



. . . then printed title photographed.

ABOVE photos show steps in printing and photographing titles in Telefilm's new film caption plant, which boasts most modern equipment of its kind. The layout features unique type pre-heater, vertical pneumatic press and centralized camera controls.

Modern Title Making

How one company is meeting the demand for low cost titles for television films with modern equipment that insures top quality photography.

By NORMAN KEANE

THE PHOTOGRAPHY of titles, while somewhat of a routine procedure as compared to cinematography on studio sets, is nevertheless an exacting science. There's plenty the cameraman must know about lights and shadows, about focus and lenses and color contrasts and harmony in order to produce the crisp, sharp titles demanded by the motion picture industry today. And if well-lighted, sharp titles are a must for feature motion pictures, they are doubly so for television films, where some slight loss of definition necessarily take place in transmission.

There's more to making titles than the photography, of course; but unless the original copy has definition and contrast and is well balanced for color, where the title is to be photographed in color, there isn't much the cameraman can do about it. In order to bring all phases of title making under one roof, where both the composition and photography may be closely supervised with the end result in mind, Telefilm, Inc., Hollywood, who specializes in titles for 16mm. film producers, has installed a complete title making department in its recently constructed annex on Hollywood Boulevard. Probably the most modern and efficient department of its kind, it includes a pneumatically operated, vertical hot press capable of handling main, sub and credit titles, text for commercials, newsreel type captions and superimpositions, producing sharp images on either celluloid or cardboard.

The press was designed and constructed by Telefilm's engineers for precision production of title cards that photograph with maximum sharpness and definition. The whole department, of course, is laid out with an eye for speedy production of titles at low cost, which the makers of television films demand. The title department is laid out so efficiently that one man can operate it with a minimum of lost motion. In the department are cases of modern type faces, heater and press—all within a step of each other, yet there's ample room for several employees to work there, if necessary.

The selection of type faces is such that it is possible to provide a wide variety of title styles, including shadow effects for mains, far cheaper than where title cards are lettered by hand. Once the title text is composed, it is locked in the conventional chase (Fig. 2), such as used in print shops, then placed in a thermostatically controlled, specially designed heater (Fig. 3). Unlike with ordinary printing, best title card impressions result where the type is first heated and special pigments provided—a practice in general use throughout the industry. But Telefilm has modernized the procedure, as may be seen by studying the series of photos above.

The impression method is similar to that used in applying gold lettering to leather goods. The heated type and chase

(Continued on Page 27)

TECHNICOLOR cameras, such as one shown here photographing a scene for "Mother Was A Freshman" (under guidance of Art Arling, A.S.C.), today render the most faithful reproduction of color in motion pictures. The technical development of color processes has been mainly along the line of slow and steady progress in perfecting rather early conceived principal methods, as may be seen when studying the history of the Technicolor process.

Color And Color Reproduction

Color as a science has a rather complex structure. The study of its psychophysical and psychological phases offers a new and very large field to the progressive cameraman.

By DR. HERBERT MEYER
Motion Picture Research Council

IT APPEARS that to reproduce color one would have first of all to know all about color. However, just as in black-and-white photography, the applied art seems to have flourished remarkably and developed its practical methods toward more perfect results without too much worry about the many question marks, which still make those concerned with photo-reproductive theory wonder about the true nature of its fundamentals.

The fact that we resort to at least three different theories explaining the phenomena of light, the electro-magnetic, the corpuscular and the quantum theories, instead of a single one, is sufficient proof that we are still groping for basic truths. The science of color presents not only an alarming number of difficult questions relating to pure physics. A large part of what we know of color reactions defies explanation through an approach by physics. It can only be properly understood, described and classified as psychophysical and as psychological phenomena or as color sensations.

The recognition of the fact that by mixing three primary colors, red, green and blue-violet, in different proportions any other color can be obtained or matched, had slowly grown out of the practical experience and observations of early painters. It became the lasting contribution of Thomas Young to furnish accurate experimental proof and formulate it into a basic law, which in consequence seemed to require the assumption that the human eye must be equipped with three receptors, each sensitive to only one of the primary colors. This theory although physiologically not at all proven, has furnished the foundation upon which color photography has been begun and developed.

The additive primaries, of which little can be said as to their physical properties since color itself is not a substance but a sensation, have certain characteristics which distinguish them from other colors. One is that none of them can be matched by any two other colors. A further observation is that all three primaries, when mixed additively, result in the sensation of white. From this follows that the additive mixture of two of the primaries is, in each instance, complementary to the third primary, since we also know that complementary colors are colors which when additively mixed will result in white.

The colors of the three complementary or secondary primaries which we use in synthesizing the color print when practicing the subtractive process are: Cyan, complementary to primary red; Magenta, complementary to primary green; and Yellow, complementary to primary blue-violet. It, therefore, follows that cyan must be the same as the additive mixture of primary green and blue violet, which as was stated, is also complementary to red. This explains the often used other name for cyan, which is minus red. Similarly, it follows that magenta must be the same as the additive mixture of primary blue-violet and red and is, therefore, called minus green. Last, yellow must be equal to the additive mixture of red and green and is accordingly named minus blue (blue-violet).

The two fundamental processes used for photographic color reproduction are known as additive and subtractive methods. In making the negative exposure, in order to obtain color separation negatives, identical primary color filters can be used for either method. These filters are practically standardized as red filter A (dominant wavelength 610 millimicrons), green filter B (dominant wavelength 546 millimicrons), and blue filter C-5 (dominant wavelength 649 millimicrons). The eye can not distinguish the individual components in a color mixture, which is rather advantageous in color reproduction since it makes it permissible to use filters or dyes which transmit relatively wide or widely separated bands, instead of one narrow-banded, monochromatic hue. The dominant wavelength of a filter, therefore, represents the mean hue trans-

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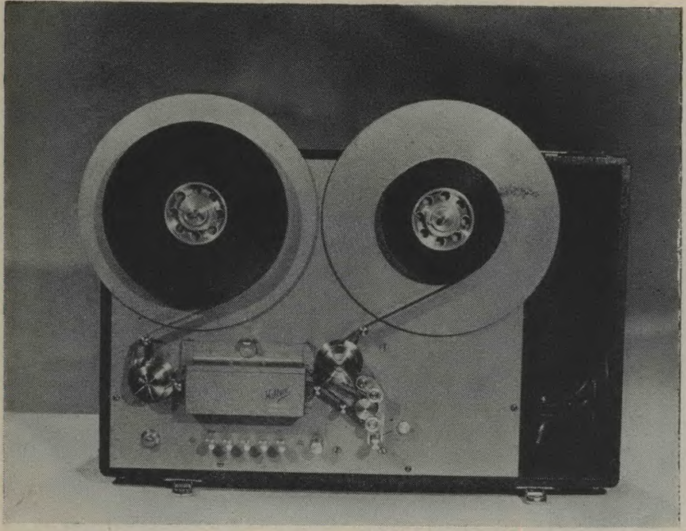
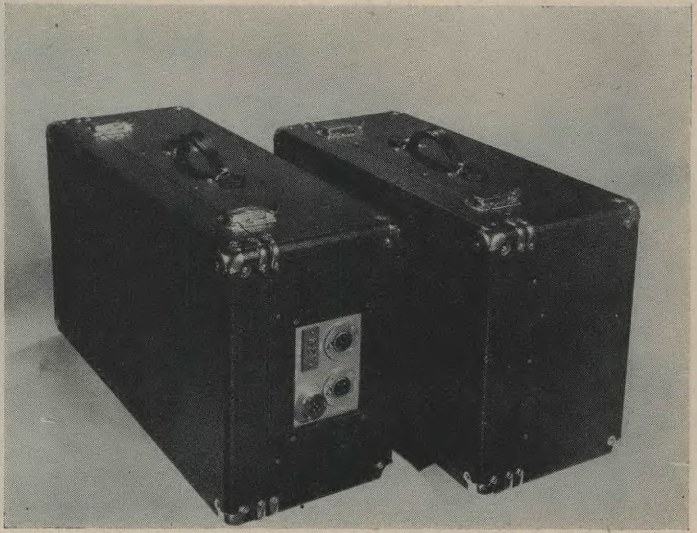


BOASTING a recording range from 40 to 10,500 cycles, plus or minus 2 db., this precision-made recorder has built-in monitoring facilities, uses slit 35mm. oxide coated film perforated for the recorder's sprocket drive.



PORTABILITY and light weight are salient features. Recorder and amplifier are housed in two handsome leather-covered carrying cases. Net weight of both is ninety pounds.

A Synchronous Magnetic Recorder

The new Hallen recorder may be synchronized with any 35mm. or 16mm. synchro-motor driven camera; records sound on perforated, oxide coated 17½mm. film.

By RALPH LAWTON

THE SWIFT development of magnetic recording during the past few years has opened up vast new possibilities in the field of sound recording for motion pictures. Today it is possible for the explorer, the lecture film producer and makers of industrial, newsreel and television films—even Hollywood studios—to record sound for films never before feasible with cumbersome optical sound equipment. Magnetic recorders, being compact and in most cases portable, can be easily transported along with camera equipment to the most remote and heretofore virtually inaccessible spots. For western location filming they are ideal.

The Hallen Corporation, of Burbank, California, headed by Len Roos, A.S.C., has pioneered in the development of magnetic sound recorders for use in the production of motion pictures, and now has a portable magnetic recorder in production which records sound on oxide coated film 17½mm. wide with standard perforations. One of the first recorders to use perforated film, it affords fully synchronized sound, may be operated in synchronization with any 35mm. or 16mm. synchro-motor driven cameras.

Roos, in addition to being an ace cinematographer of many years' experience, is also a pioneer in the field of sound recording. In 1929 he designed and began manufacturing and distribution of the Tanar single system optical film recorders which were sold the world over. Having travelled far and wide during his career as a photographer, during which time he produced motion pictures with all kinds and types of sound equipment, Roos knows from actual experience the location photographer's problems and how well portable magnetic recording fits his needs.

In addition to many years of research on magnetic recording, Roos spent more than a year in engineering the Hallen recorder to its present state of perfection. The recorder is now in production and despite the meager rumors of its existence emanating out of Hollywood—Roos preferred not to announce it until all was in readiness for uninterrupted production—the Hallen Corporation already has orders on hand from cinematographers and film producers in South America, Philippines, Alaska, Israel, Italy and China. James Wong Howe, A.S.C., will use one when he resumes production of "Rickshaw Boy" in China next year.

The complete recording unit, which is pictured on this page, comprises the recorder and amplifier, each in its own durable, leather-covered carrying case. Total weight of the two pieces is ninety pounds. The recorder is ruggedly constructed and designed to operate with high precision in any clime and under any conditions. Roos has concentrated on the perforated oxide coated film as the medium for recording because it affords the only means of assuring absolute synchronism. Unperforated tape recorders present problems of slippage in the film transporting mechanism, which cannot occur where perforated film and sprockets are used. The precision machining of parts is also an important factor contributing to the quality of magnetic recording, and

(Continued on Page 32)

Better Pictures
In 1949
Will Be
Photographed
In Black and White
And In Color
With a Wide Range Of
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NEGATIVES

Always
EASTMAN
Always The Best

And— Of Course—
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NOW... Top Quality Sound For 35mm. and 16mm. Film Production

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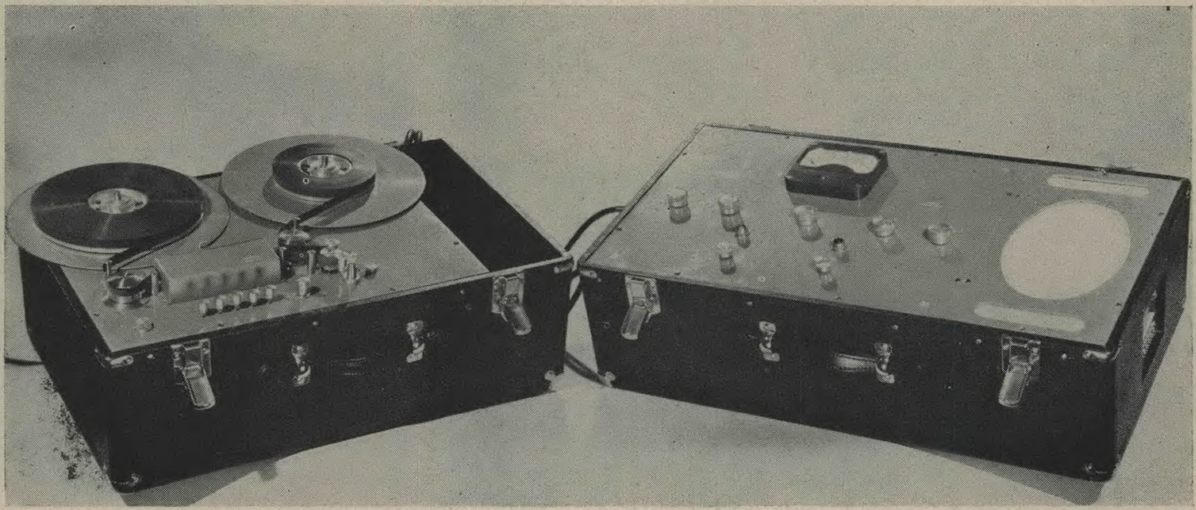
SYNCHRONOUS **MAGNETIC** RECORDER



The finest portable magnetic recorder for production of sound films.

- **Gear-driven 17½mm. sprocket.**
- **Interlocks with any 35mm. or 16mm. synchronous-motor driven camera.**
- **40 to 10,500 cycles, + or — 2 db.**
- **Film speed of recorder 90 feet per minute.**
- **Net weight 90 pounds.**
- **Records on slit 35mm. oxide coated film.**
- **Built-in 2-stage pre-amplifier, handles any standard microphone.**
- **Fast forward and reverse control for editing.**
- **Built-in monitoring facilities.**
- **Electric brakes.**

Price $1500.00

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Puppets Star In Budget Tele Films

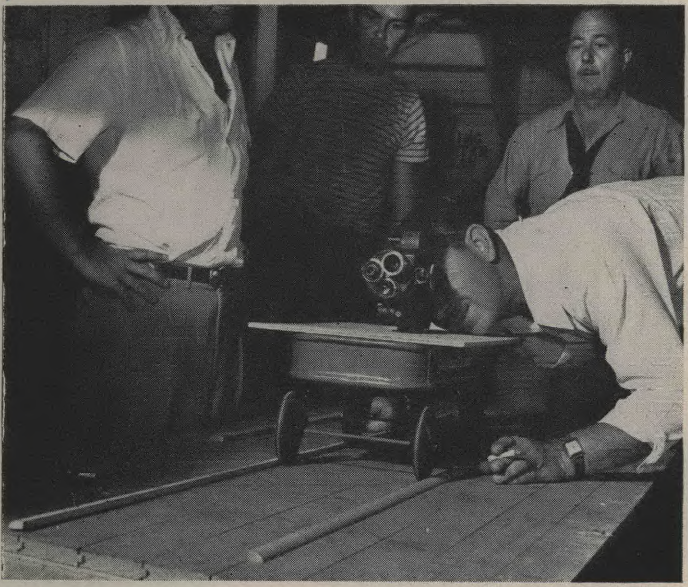
Use of marionettes points way to economical production of program and spot commercial films for television.

By CHARLES LORING

LIGHTING of puppets and the miniature sets required extreme care to achieve proper contrast without "burning out" the features and costumes. Multiple shadows had to be avoided and the strings manipulating puppets obscured by corrective lighting.

THE TELEVISION race is on! In the canyon-like streets just off New York's Times Square and along the palm-shaded avenues of Hollywood, more and more production units are setting up shop to meet the demands of the nation's newest and most exciting entertainment medium: television.

It is a medium that has enormous potentialities, but which also represents a definite challenge to technicians switching from stage, screen or radio. Until television receiving sets are as numerous as present-day radios, the main problem for the producer will be to provide top-grade entertainment at a cost that is not prohibitive to the sponsor. This axiom applies also to the playlets or other visual presentations that will replace the "spot commercials" of radio. These commercials must be original, lively enough to catch and hold audience attention, technically smooth, and inexpensive enough to be commercially feasible.



EVEN the camera dolly had to be a miniature. No standard camera truck would do for the dolly effects, so a toy wagon with a 16mm. Filmo mounted upon it was employed for making highly effective mobile camera shots.

A type of commercial that meets all these requirements and a few more was previewed in Hollywood recently when Sentinel Productions sponsored a presentation showing of a short film with a cast made up entirely of puppet "actors." This highly original and thoroughly entertaining commercial short subject features the Music Box Puppets, created and manipulated by Don and Ivy Wilson of Laguna Beach, California.

In order to film this sample television commercial, a crew of seasoned Hollywood technicians motored down to Laguna Beach and took over the auditorium of the local high school, converting it into a sound stage for the puppet thespians. The motif of the film was adapted from the miniature circus, which for several years has been the Wilsons' most popular routine. It features clowns, tight-rope walkers, elephants, a tap-dancing character named Ring-Tail Pete, and a violin virtuoso who plays "Intermezzo."

The picture was filmed on Commercial Kodachrome with an unblimped Bell & Howell 70DA camera. The sound was recorded directly during filming by means of a tape recorder and was later re-recorded onto film for printing with the picture. The recording microphone was placed high in the proscenium of the miniature stage where it picked up the voices of the puppet characters as produced by Don and Ivy Wilson. Special shields were used to keep the microphone from picking up any noise from the camera.

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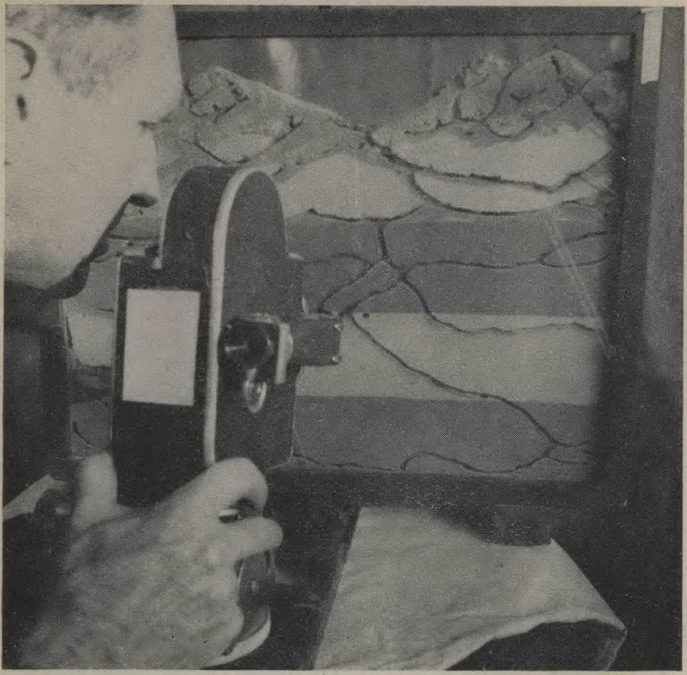

TO INSURE successful takes, author Tompkins attached a check list to back of camera which he followed religiously before starting the camera each time. Thus he insured that every shot, many which were impossible to duplicate, was properly focused, correctly exposed, and the motor spring wound for a capacity run if necessary.

Filming The Harvester Ant

Rare educational film on ant life photographed with 16mm. camera fitted with extension tubes and homemade gadget for determining focus at close range.

By WARWICK TOMPKINS

"NO ONE has ever made a color film about ants. Why don't you?"

That remark by a natural scientist was tossed into the ocean of my ignorance of micro-photography six months ago. It resulted in the single-reel 16mm. Kodachrome picture *Life of the Harvester Ant (Part one).*

Why no one else had ever made such a film before became clear as soon as I tackled the problem. Even if a cameraman had all the backing and equipment of a major studio, he might have been balked by some of the difficulties I encountered.

For equipment I had a Paillard-Bolex 16mm. camera, a not-too-steady tripod designed for a still camera, one 500-watt spotlight and enough photofloods to blow every fuse in the house, whenever I was thoughtless enough to switch them all on at once.

The chief actors in my picture were red ants commonly found throughout the Southwest. Scientists know them as Pogonomyrmex, a term they have sensibly reduced to Pogy. As ants go, Pogy is large (1/5th of an inch in length), and "relatively sluggish," to quote the text books. These virtues, as well as their color, recommended them as did the helpful fact that Pogy cannot climb glass or other smooth surfaces.

Several weeks of experimentation made a number of facts exceedingly clear. The "relatively sluggish" Pogy moved so fast that an ant would enter a scene and be out of it in the space of single frame of film. Ergo—to get anything on the film, slow-motion speeds would have to be used. Nor was Pogy amenable to direction, coaxing, bullying or threats. It was going to take a heap of shooting to secure scenes that could eventually be whipped together to form a meaningful film subject.

Shortcomings in an otherwise excellent camera had also been discovered. Seen from a distance of 18 inches—the closest "close-up" possible with a one-inch lens and a Bolex finder—Pogy was merely an animated dot in a huge field. How could she be photographed closer?

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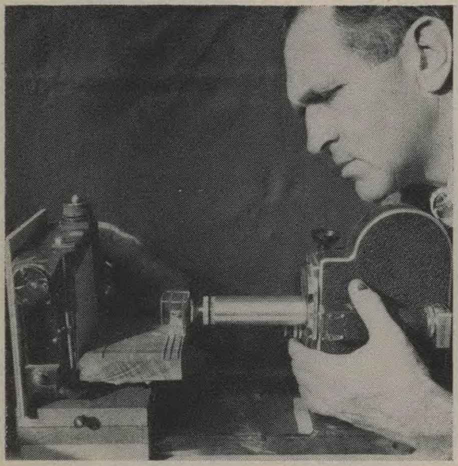
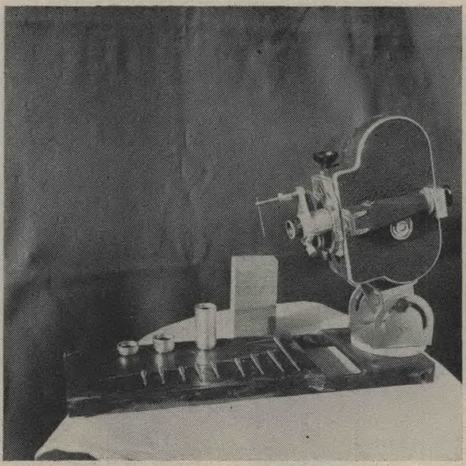
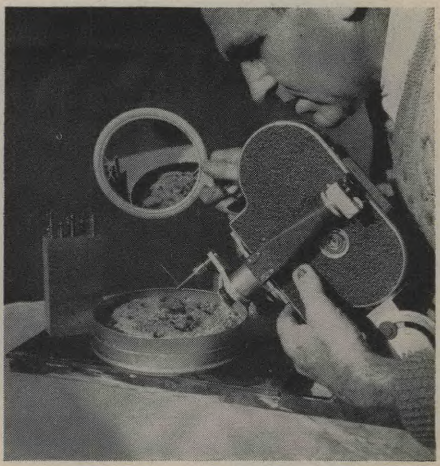


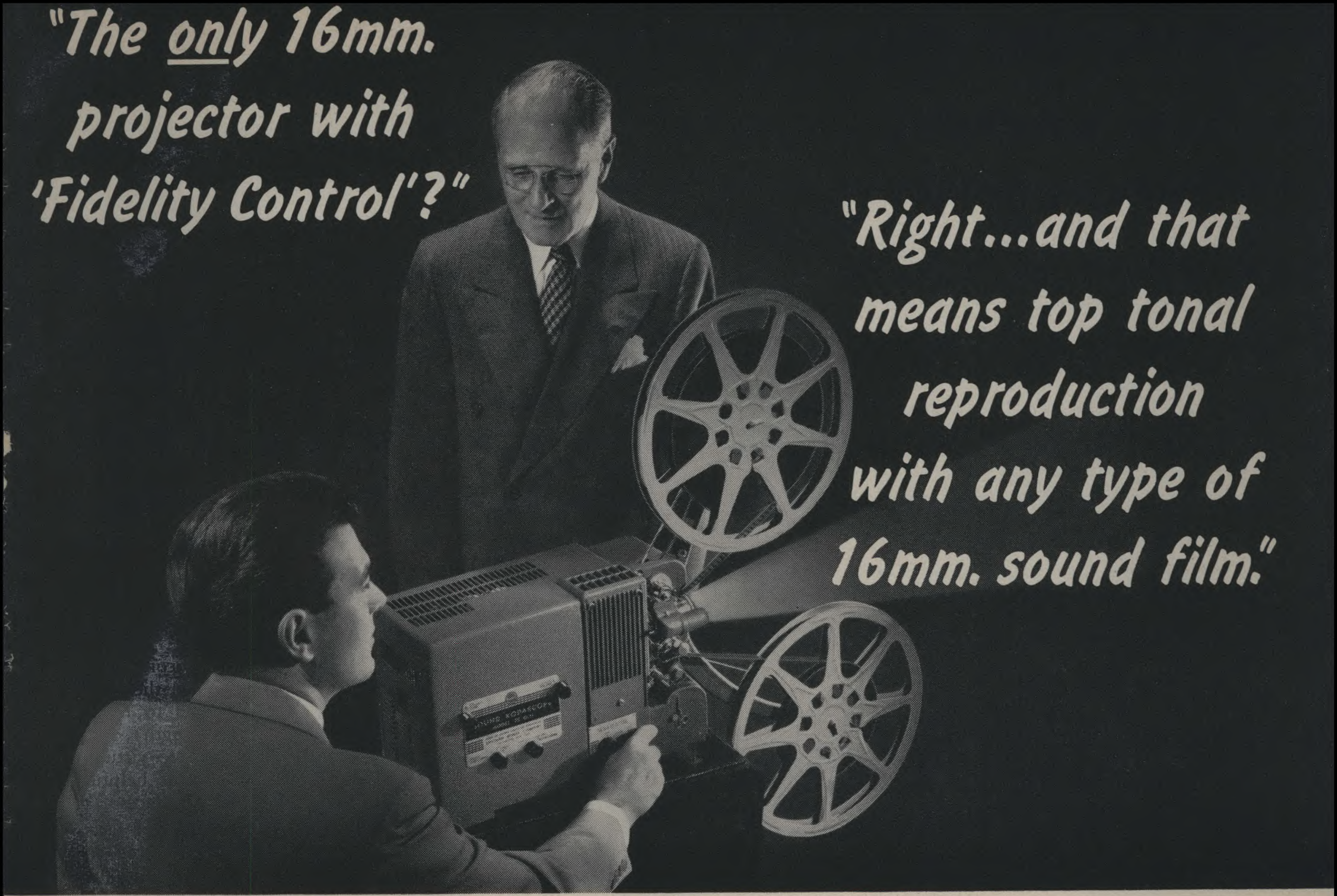
TOMPKINS rigged up an adjustable stage for his ant actors, using part of a war surplus bomb sight to effect minute vertical and horizontal adjustments of stage. Ants were confined in glass cubicle before lens.



TO INSURE accurate focus in photographing ants an inch or two from the lens, Tompkins made a series of pointers which he attached to camera lens. Pointer indicates center of field, is moved out of range when making shot.



HERE Tompkins shows how he used mirrors to reflect sunlight on his tiny subjects. All shooting was done in daylight because the use of photofloods created too much heat, aggravated the ants to a frenzy.


"The only 16mm. projector with 'Fidelity Control'?"
"Right...and that means top tonal reproduction with any type of 16mm. sound film."

Sound Kodascope Projector is supplied in two models—FS-10-N (pictured above) and FB-40 (below). The FS-10-N, with an amplifier output of 10 watts, is for use in homes, clubrooms, small-sized auditoriums. The 40-watt output of the FB-40, readily reined in for these uses, is especially suitable for showings before audiences of thousands.

The features detailed below—integral with both models—are those that help to make the Sound Kodascope Projector top choice of those who demand the finest in sound projection for showings before small groups or large.

Fidelity Control—A flick of your finger focuses the scanning beam, "picks out" the sound track with hairbreadth accuracy, whatever its position or whatever the type of 16mm. sound film used—original, "dupe," or reduction from 35mm. Operated at high- or low-volume levels . . . straight sound projection, or mixed with music or commentary . . . the tonal output is always crisp, always distinct.

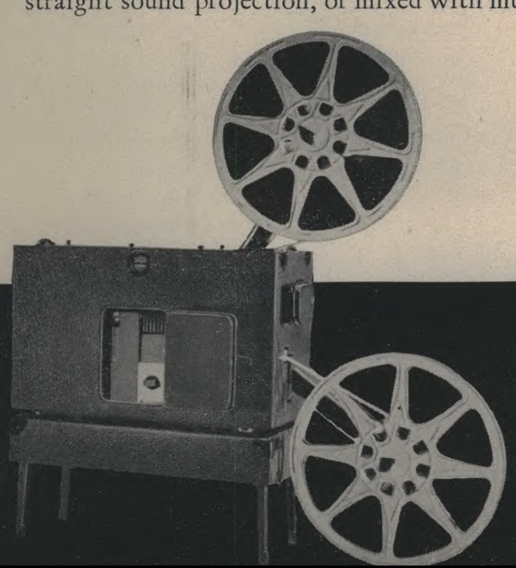
Superb optical system—A precision-made *f*/1.6 *Lumenized* lens teams with a powerful 750-watt lamp to provide sharp and brilliant images under average projection conditions. And a choice of several fast accessory lenses, ranging from 1 inch to 4 inches, makes possible a wide variety of screen sizes and projection "throws."

Easy showings—Everything but film and the screen is "suitcase-handy." Controls are centrally located . . . easy to operate. Wide-opening film gate and positive latches simplify threading. 2000-foot reel capacity makes possible sound showings almost an hour long without a reel change . . . silent showings even longer.

See them demonstrated—at your Kodak dealer's. Prices: FS-10-N Projector, with single speaker, $500; with twin speakers, $565. FB-40 Projector, with twin speakers, $855 . . . EASTMAN KODAK COMPANY, Rochester 4, N. Y.

Prices subject to change without notice.

Sound Kodascope Projectors FS-10-N / FB-40

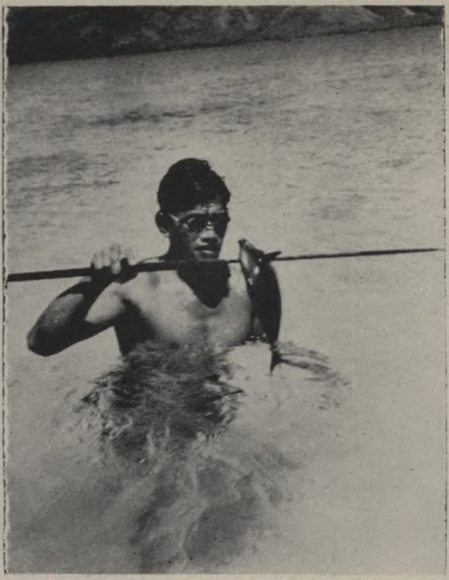


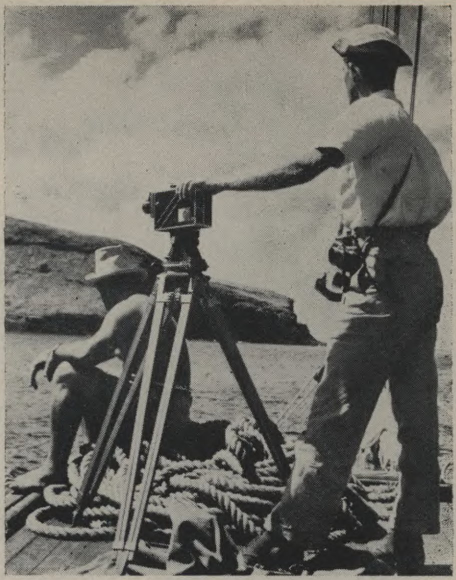
"KODAK" IS A TRADE-MARK

SOUND KODASCOPE FB-40 PROJECTOR The amplifier delivers 40 watts of undistorted output . . . twin 12-inch speakers are provided to handle this tremendous power adequately.

Because, as with all sound projection, reproduction is best when amplifier and speakers are driven at less than full capacity, FB-40's vast potential power—invaluable when the projector is operated before large audiences at high-volume levels—is highly important, too, when the FB-40 is used in smaller auditoriums for smaller groups.

Kodak





NATIVE fishing activities furnished Charles Allmon the most spectacular picture material of his entire filming adventure in the South Seas. Native Tahitians are adept spear fishermen and carry on fishing activities in some of the most rugged and picturesque ocean areas in the South Seas—places where few cameramen have dared venture with their cameras. Picture at right shows Allmon ready with camera as boat maneuvers close to shore for a shot of the fishermen. Fishing sequence is a highlight of Allmon's lecture film currently being shown throughout U. S.

South Seas Saga

Into the ancient center of Polynesian culture and religion went this youthful photographer to record in 16mm. color a remarkable lecture film on life in the South Seas.

By CHARLES ALLMON

IT'S A LONG voyage from the USA to the South Seas and islands of Polynesia, yet the sight which greets the eye as one approaches the circling reefs of Tahiti is much the same as that which sailors out of Liverpool, New Bedford and Marseilles saw one hundred and fifty years ago.

As our island freighter nosed its way up to the landing at Papeete, it marked the end of three months of research and preparation. Now I was ready to go to work—and have some fun. My journey to the South Seas had been made to shoot a 16mm. documentary film of the various islands of the Society and Marquesas groups. I was here with camera and a good supply of Kodachrome film to photograph spear fishing, hula dancing, the story of copra, the inter-island trading schooners and other facets of life in this colorful part of the world.

Tahiti, a mere pebble of an island in the southeast Pacific, is but forty miles long and twenty-five miles wide, and shaped somewhat like a Mexican sombrero; mountains strain skyward for nearly eight thousand feet. Seventeen degrees south of the equator, and wholly within the tropics, one would expect to encounter weather conditions prevailing in other tropical regions; but such is not the case in Tahiti. Humidity is seldom above 85 per cent, and temperatures are consistently moderate.

Getting my cameras and film through the red tape of French customs was more of a problem than I anticipated. I learned, among other things, that one-third duty is levied on all film brought to the islands; that cameras may be brought in and retained for a period of six months before duty must be paid, which amounts to one-third of the original cost.

My equipment included a Cine Special camera with a complete set of coated lenses, a Bell & Howell 70DA camera, and several hundred feet of Kodachrome film. The film was all of the same emulsion number—a precaution taken to insure against roll to roll color variation. Additional equipment included various filters, a Professional Junior tripod with gear-head drive, water-tight cases for cameras and films, and a supply of silica gel for desicating film in storage.

Anyone journeying to Tahiti these days is due for a great surprise—possibly disappointment. At the present time it is not the idyllic and fabled paradise where one may loaf on the beach and live for a few francs per month. The people and the scenery are little changed, but the economy has received a shot in the arm as an aftermath of the war. Prices have skyrocketed beyond all reason. Bungalows, which ten years ago could be rented for ten dollars a month, now bring sixty to one hundred dollars. I was indeed fortunate to find a modest, thatch-roofed bungalow conveniently located.

I had been filming around Tahiti not more than ten days when local experts began to caution me about Tahiti's peculiar light conditions: "Better watch that light, young man; those shadows record black, especially on color film." True words these were, indeed, as I found out later, as did also the Hollywood camera crews who years ago spent many months here filming "Mutiny On The Bounty."

Smog and fog are non-existant. The nearest great land mass is more than 3000 miles away, precluding the possibility of any great amount of dust particles in the air. As a result there is little natural diffusion of light. The first Koda-

(Continued on Page 28)

Count on the film instead of the light!

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TO PREVENT TRIPOD FROM slipping on slick floors, provide three blocks of wood about 3" X 3" X 1" and drill a recess in each to take tip of tripod leg. Set up tripod and place blocks under the legs. Then stretch a length of clothesline or sash-weight cord from block to block and secure in place with staples. The cord will hold the blocks equidistant and provide a solid, non-slip support for tripod. When not in use, gadget may be quickly folded and stored in a minimum of space.

•

EDITING YOUR FILMS will be easier if you screen them in motion as you edit. Use your projector for this, setting it up on your worktable and focusing it on a small screen made from white desk blotter cemented to inside bottom of a cardboard carton. Place carton on one side and about three feet in front of projector. Sides of carton will shield room lights from miniature screen enabling you to project pictures with room or work lights on.

•

BARNDOORS for your clamp-on reflectors can be made from two pieces of cardboard. Tack cardboard to spring clothespins which will serve as clamps to hold barndoors in position at any angle.

•

A PLAIN WHITE window blind makes an excellent projection screen for either home movies or colored slides.

•

FOR A NOVEL main title with an action or live scenic background, use block title letters and affix them to slats of a venetian blind, utilizing not more than three slats for the composition. Start camera with slats open, then gradually close slats to reveal title text. Action may be staged outside window or garden scene used for background. Focus on title at close range and use smallest stop possible to gain maximum depth of focus.

•

A VIEWFINDER FROM a discarded box camera can be utilized as an auxiliary viewfinder for cine cameras equipped with wide angle lens attachments. Most box camera viewfinders afford a wide angle view comparable to the field of wide angle lens attachments. Compare fields of both, using strip of sanded film in camera gate, and mask off auxiliary viewfinder eyepiece where necessary. Attach finder to side of camera, using scotch tape or a clamp made from light metal.

•

MUSIC TO MOVIES

(Continued from Page 11)

Tracing the history of almost any top cinematographer today, we would invariably find that he began with some knowledge or experience in photography. Snyder is the exception. He started from scratch, with little or no knowledge of how even the simplest snapshot was made. There was a smoldering urge within him, however, which soon developed an avid student of things cinematographic. The keen interest and unusual natural talent he displayed in his work soon won for him the admiration and friendship of many Hollywood's foremost cinematographers with whom he worked.

It is these very men whom Snyder credits for much of his success today—such experts as the late Oliver Marsh, who taught him the fine science of photographing women stars with accent on glamour; Merritt Gerstad, who first coached him in the technique of effect lighting; Clyde DeVinna, A.S.C., whom Snyder claims is the best photographer in the business, an expert on interiors who revealed to him many important lighting secrets; and Victor Milner, A.S.C., with whom he worked frequently and to whom he credits much of his knowledge of "style" in cinematography.

Thus taken in hand and coached by some of the best men in the business, Snyder has emerged as a leader in his own right. When asked how he acquired his special technique for color photography, Snyder said, "I simply combined the best ideas of these men with some of my own that I've developed over the years. I feel that the education I received working in the various studios and with most of the leaders in the profession, is something I could not have acquired in any school or from reading books."

Snyder often reminisces on the ten years he spent with Technicolor as the most enjoyable of his career. Whether it was foresight or simply luck, going with Technicolor was the luckiest step he ever made, he avers, for it enabled him to prepare early for the inevitable industry-wide trend toward Technicolor films. That it has paid off is evidenced by the commitments for Technicolor productions he has completed in recent years.

His list of credits are impressive, for they include some of the best boxoffice hits turned out in Hollywood. He was associated with Karl Struss, A.S.C.. and Wilfrid Cline, A.S.C., on "Aloma Of The South Seas;" with Lester White, A.S.C., on Universal's "White Savage;" with Victor Milner, A.S.C., on "The Princess And The Pirate," and with Charles Lang, A.S.C., on "Blue Skies." On his own. as director of photography, Snyder's more recent credits include "The Bandit of Sherwood Forest," "Renegades," "The Swordsman," "The Loves of Carmen," "The Return Of October," and, currently, "Jolson Sings Again"—all Columbia Pictures productions.

Of these, "The Loves of Carmen," "The Return of October," and "Jolson Sings Again," reveal the broad scope of Snyder's camera artistry more fluently than could any mere wordy description. "Carmen" was strictly an effects picture in which Snyder's skillful lighting and subtle camera effects are dominant notes. "Return of October," by contrast, is a light gay comedy which required an altogether different camera and lighting treatment. And now "Jolson Sings Again" is yet another type of picture, which combines the gaiety and scope of musical sequences with highly dramatic episodes in a gentle love story involving one of the entertainment world's most colorful personalities. As in his photography of "Loves Of Carmen," Snyder's handling of color lighting in this picture is not the slide rule approach of the technician, but the emotional approach of the born artist. The emotional values of each scene or sequence invariably become the basic guides to his lighting and camera treatment.

Quiet and unassuming, William Snyder is highly respected by every member of cast and crew working with him on the Columbia lot. Indeed, his friendships among technicians, cameramen and players on every Hollywood lot are legion. And toward those who so generously helped him along in his formative years—from that fateful day when first he began loading cameras at M.G.M.—Bill Snyder feels a sincere debt of gratitude. "They made it all possible," he says, simply.

FILMING ANTS

(Continued from Page 18)

In order get desirable closeups I acquired a set of extension tubes (½", 1" and 2") which supplied high magnification, and I began to see wonderful pictures — on the ground-glass focusing screen. I discovered the ants are hairy beasts, that they have teeth inside their mandibles, etc. But the extended lens that projected these tantalizing images onto the focusing screen had to be racked over to an altogether different shooting position before I could get anything on film. And once the lens was racked over, I had the problem of getting my ant centered again in front of it at precisely the right distance and within a frame of pleasing composition.

That problem was finally licked by the construction of a shiftable stage or table which duplicated the rack-over motion of the lens. Tripod vibration had been evident in my first tests, so a solid steel base was made to hold the camera instead. The rack-over table was made to slide back and forth along this base. When focusing, my extended lens was at the upper right corner of the camera face. The table was then raised on its four short legs and brought hard up against a stop at the right side of the camera base. Then, when the focus and composition was properly set, the lens was swung to the shooting position and the stage also shifted over to the left. When it was firmly settled into its final position, the relation between lens and subject was the same as it had been at the focusing point.

Before I had filmed very much with this equipment, I discovered the need for a fourth extension tube—one ¼″ in length—which I had made. This was for use in making "long shots"—a long shot in this case being 4 inches and affording a width of about 1⅜ inches. A three-inch tube affords a field size approximately 6/100th x 4/100th of an inch, with the subject a scant half-inch from the lens.

One of the hardest problems involved in framing was getting the foreground at the right height or following action from right to left. Raising or lowering my subject, by adding or subtracting cardboard or paper shims beneath the stage, was a maddening time waster. Since depth of focus was never more than a quarter of an inch and, with extreme magnification, fell at times to possibly 1/100th of an inch, there could be no thought of panning the camera.

A drift indicator from a war-surplus bomb sight resolved that problem. The drift indicator possessed a beautifully calibrated, ball-bearing gear system which produced both horizontal and vertical adjustments when its knurled knobs were turned. With this device mounted on the rack-over table and a firm little platform mounted to it to hold my "stage," I gained great flexibility and certainty in properly placing my subject before the camera lens.

A fixed camera, however, is a great handicap. By shifting my tripod's tilting head to the steel camera base I obtained mobility for the camera, but lost the use of my rack-over table. I was faced with the problem of knowing when I had an ant in my field of view, as in the scene where I am shooting down into a film can in which a colony of Pogies are based.

This hazard was overcome by a pointer device seen in the accompanying pictures. I very accurately determined the focal distance for each of my extension tubes or for any combination of the tubes. A collar was made which clamped snugly around my lens and butted up solidly

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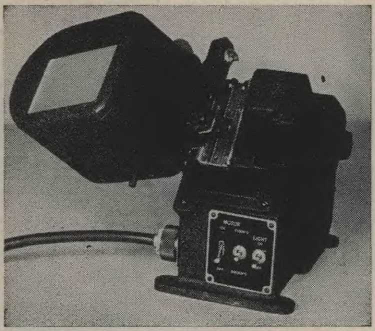

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THE AMERICAN CINEMATOGRAPHER
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against the extension tube. A screw socket in this collar took a nicely-machined rod, at the far end of which was a sharp pin which could be adjusted so that its point fell in the center of the lens field. Then, knowing the size of the field of view obtaining for each extension tube, I could mark the center of the field with the pin point (noting it by the location of a pebble or blade of grass) and then start my camera when the Pogies moved into this sharp focus area. These pin-point devices were invaluable when it came to taking pictures with very high magnification.

My natural desire to take pictures with artificial light was thwarted by the excessive heat of photoflood lights. It drove the ants frantic, accentuating their already swift movements to a point where even 68 frames-per-second gave nothing but a brownish blur on the screen. Ultimately I made the film in daylight, stepping up sunlight by the use of two, three or even four mirror reflectors. Even with such concentrated light and heat, scenes had to be made quickly or the ants would be seriously disturbed.

Part One of *Life of the Harvester Ant* concerns the fascinating facts of ant life anyone can readily observe in an artificial colony in his own home. It shows how to capture ants, how to build an artificial colony and it points up the tireless energy and engineering skill of these minute workers. It's record of a 73-hour duel-to-the-death between two red ants is an exciting sequence, as is the film record of an ant (weight, 1/8600th of an ounce) lifting a boulder 18 times it own weight from a blocked tunnel.

Part Two of this film—much of which is already photographed—will show the complete life cycle of the harvester ant, with the exception only of the nuptial flight of the princess ant who, becoming the queen, then becomes the mother of a new colony. This love episode of ant life, alas, takes place in flight, precluding any photographic record.

PUPPET TELE FILMS

(Continued from Page 17)

Lighting equipment included conventional floodlights for general illumination, Baby Junior spotlights for key-lighting and top-lighting and Dinky-Inkies for highlighting and kicker-lights. The puppet stage had to be enlarged somewhat to permit the arrangement of lights overhead and in the wings. While the general mood of the photography is high-key, great care had to be taken not to "burn up" the delicate coloring of the puppets faces and costumes through the use of too much light. On the other hand, sufficient light had to be used to enable the cameraman to stop down his lens for added detail and depth of field—two very important considerations when one is shooting a picture in huge close-ups.

First cameraman Charlie Straumer and his assistants, Dick Davol and Emmet Burkholz, encountered several problems which never develop during the filming of live players. The foremost obstacle that had to be overcome involved getting a variety of angles on the tiny sets and players. Filming the action from a straight front angle was relatively simple, but this technique had to be varied with side angles which were difficult to light. Then, too, a great deal of care had to be taken so that multiple shadows would not clutter the background and distract the audience's attention.

Since the television medium requires films shot with good contrast, it was necessary to build up the general level of the set lighting. However, it was also important to avoid both excessive shadows and exessive flatness. This "happy medium" in lighting is rapidly becoming standard technique in films made expressly for telecasting.

The strings by which the puppets are manipulated presented their own particular problem. The camera crew was more concerned with the shadows of the strings than with the strings themselves. In order to minimize these shadows, the backgrounds had to be lighted rather brightly and evenly. On a full-sized screen the strings in the finished film are just barely discernible, and on the television tube they are invisible—even in the extreme close-ups.

In staging the "Intermezzo" sequence, the music is first heard over a long shot of the puppet stage. The curtains slowly open to reveal a glamorous lady playing the violin. She is accompanied by a professorial-looking character who plays a white grand piano. The camera then slowly dollies in to a close-up of the lady violinist. The camera movement is very smooth and quite in the M-G-M tradition, but the technicians shed much blood, sweat and tears to achieve the effect.

A tiny red wagon was used for a dolly. It first had to be taken apart, thoroughly greased and specially adapted to run smoothly. Dolly tracks consisting of wooden strips were tacked onto a wooden table, and the camera was securely fastened to a board covering the top of the wagon. As the tiny puppet doll moved in on the scene, an assistant moved along side the camera to follow focus.

On the screen the tiny actors sing and dance and talk—now and again tossing in a sly plug for the sponsor. The pace is lively and the wholesome comedy is universal in appeal. One soon forgets that he is watching inanimate wooden dolls, which are scarcely 18 inches high. Shown in extreme closeup, the puppets seem life-size, almost human actors, but with a whimsical charm that is peculiarly their own. Their antics and merry patter command attention in a positive way, and they put across a commercial message in the guise of smooth entertainment.

Earle Harper, who heads Sentinel Productions, also directed the sample puppet film. A veteran of 25 years in the motion picture industry, he was one of the first to go all out in producing films expressly for television.

"Television is chiefly a *visual* art, "Harper explains, "even though it stems from radio. When a television program appears on the receiver tube it is mainly a picture, and this means that all television shows —both live and film—must be directed for the camera. Stage technique is not enough, nor straight screen or radio technique either; television demands a blending of all three."

Most television producers agree that a unique style of motion picture production has rapidly developed to serve the technical requirements of video. It is a new and as yet unperfected technique. There is a great deal of research and experimentation to be done. But out of all this trial and error will come new and original ideas for commercials and entertainment —like the puppets of Don and Ivy Wilson brought right into your living room.

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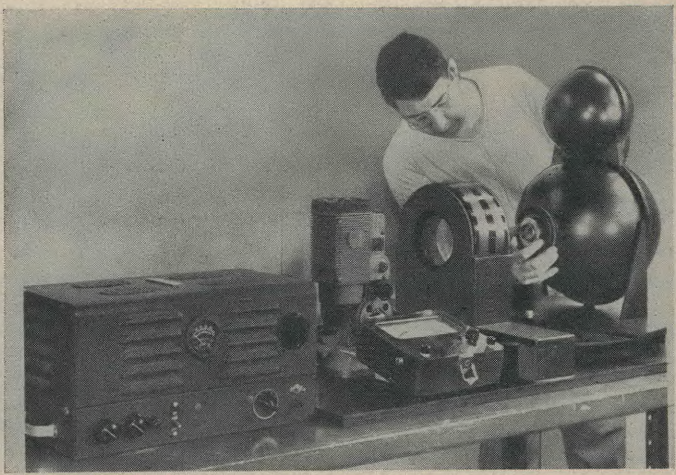

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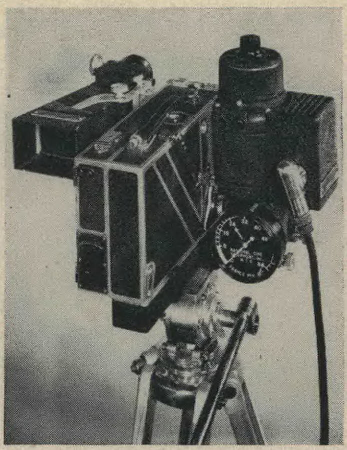

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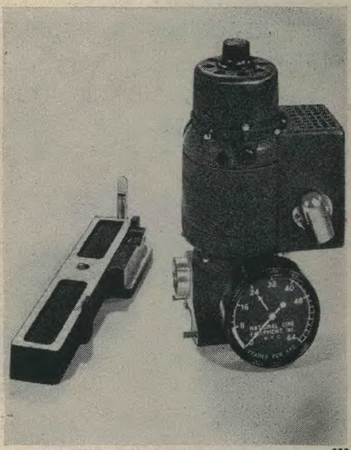

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- CHARLES ROSHER was lamenting the loss of his new Packard automobile which had been stolen where he parked it on Hollywood Boulevard while attending an A. S. C. meeting.
- ROBERT DORAN was shooting another Will Rogers' comedy at the Hal Roach studios.
- VICTOR MILNER was photographing Fred Niblo's production of "Thy Name Is Woman."
- GEORGE SCHNEIDERMAN was touring the west, scouting locations for a forthcoming Fox production.
- SOL POLITO was elected to handle the camera on First National's production of "Lilies Of The Field," featuring Corinne Griffith, Conway Tearle and Charlie Murray.
- JACKSON ROSE wound up photography on "Innocent," produced by King Baggott for Universal.
- NORBERT BRODIN was making preparations for filming First National's big sea epic, "The Sea Hawk," for which studio was constructing five ships representing an outlay of $250,000.
- DAN CLARK was shooting "Ladies To Board" at Fox studios. Picture starred Tom Mix and was directed by Jack Blystone.
- JAMES VAN TREES was president of the A.S.C., with John Seitz, Charles Van Enger and Victor Milner as vice-presidents, Frank Good was treasurer and Phil Whitman, secretary.
- FRED JACKMAN and Homer Scott were stalled in axle-deep mud with their car while on a trip to Mexico.
- JOHN ARNOLD was photographing "Revelations," starring Viola Dana and directed by George D. Baker on the old Metro lot.
- ARTHUR EDESON, Phil Whitman and Kenneth MacLean were working their cameras overtime in an effort to wind up Doug Fairbanks' "Thief of Bagdad."
- ANDRE BARLATIER and Georges Benoit were besieged by their associates to interpret captions on the illustrated French postcards which Bob Kurrle had mailed them from Paris.
- DAVID ABEL started shooting Warner Brothers' production of Sinclair Lewis' "Babbitt," directed by Harry Beaumont.
- GILBERT WARRENTON'S Bell & Howell was grinding footage on the First National lot for Joseph DeGrasse's production of "Flowing Gold."

FILMS FOR TELEVISION

(Continued from Page 9)

There are other reasons for producing television spot announcements on film, too. Cuts, fades, dissolves and superimposing text over the picture—all of which have proved so effective in motion picture presentation—are equally effective on the television screen. But more important, these devices actually enhance the commercial visually while at the same time afford fuller use of the commercial time interval, resulting in more message per minute than would otherwise be possible with a studio-enacted commercial picked up by the television camera.

Most important of all, however, is the economy that results from producing television commercials on film. By shooting them on a mass production basis, several at a time, it is possible to produce perhaps as many as six or a dozen for little more than the cost of one produced singly.

The Westinghouse series just completed is an example. It consists of eight "one minute commercials" exploiting the Laundromat, company's newest home laundry equipment. We photographed all eight in the space of an eight hour day, using six sets and eight actors. Each commercial opens with the main title superimposed over a picture background, then proceeds to show a housewife demonstrating the simplicity and economy of using the sponsor's product. In no case are there more than three or four cuts to a commercial, and all normal action is played close to the camera. Most of the shots are tight closeups of the Laundromat or of some feature which is described in the narration. The key message, "You can be *sure* if it's Westinghouse," is double exposed over the closing scene of each.

In the lighting, I avoided the extremes which are often used in standard motion pictures for dramatic effect. Simple, basic lighting was employed to gain clear, pictorial definition for every scene or closeup. Lighting for the average scene ranged around 100 foot candles. A standard Mitchell 35mm. camera mounted on a crane was used in filming the series. After the films were edited and titled, they were reduced to 16mm. for pickup by the television camera.

Incidentally, the lighting problem is another reason why the filmed spot commercial announcement is invariably superior to the live action commercial produced in the television studio. Television studio lights are often too powerful or improperly placed to produce the right illumination for showing a product to advantage. In a recent instance, an advertising routine was picked up by the television camera which demonstrates this point. The product was a bright gold compact in the hand of a beautiful model; but when the brilliant studio lights struck the surface, the light that was reflected into the camera lens was so blinding that the compact appeared as a white blur on the television screen instead of the beautiful product that it was.

Incidentally one of the chief reasons there are so many opinions regarding what is proper lighting for television films is the inconsistency of television receivers in reproducing video programs at the same light level and contrast. At the time we were making preliminary experiments, we had occasion to check the result of our television films on several receivers and found that no two receivers reproduced exactly alike. So, television films as well as live programs will continue to be criticized for their quality in some instances, until such time as broadcasting and receiver equipment are improved to provide more uniform reception.

Composition is a very important element in the photography of films for television—not so much from an arty standpoint as the practical side. What many cinematographers fail to take into consideration is that too often the full frame of the film is not the area that ultimately reaches the screen of the home television set. If the set is off a bit, or if it was so designed that the frame around the screen takes up some of the margin of the televised picture, certain parts of the picture composition are bound to be lost unless a generous safety margin is allowed all around. This is most likely to happen when filming a closeup of a person demonstrating millinery or men's hats, or of some small object filling the movie frame from edge to edge.

Because it takes as much camera and lighting preparation to photograph one "minute commercial" as ten, the big lesson producers have learned is that the only profitable way to produce television spot announcements on film is to photograph them in numbers as though they were a single production. This is feasible, of course, only where the commercials are produced as an integrated series on the same sets, as in the case of those of the Laundromat, which enabled us to shoot all the scenes of a given camera set up at one time.

For example, after scripts for the eight films were completed, we found that the entire series called for 20 scenes to be made of the Laundromat in closeup, although with different action. Therefore, we moved the camera to closeup position only once, instead of making frequent and repetitious camera changes at intervals as production progressed. Using this same production formula, it would be possible for us to shoot many more "spot commercials" than the eight we finished that day.

As one prominent telecasting head has so aptly stated: "Simple economics require an entirely new film production viewpoint, because video is still not paying its own way." The answer lies in mass production of television films carefully planned to take advantage of all possible production economies. The small sets and the need for most action to be filmed close up, makes for simplicity in the lighting and therefore reduces the cameraman's problems to the minimum.

MODERN TITLE MAKING

(Continued from Page 12)

are placed in a pneumatic press (Fig 4), in tracks provided in top plate of the press. The title card or panel of celluloid is laid on the platen below with a sheet of ink pigment, which may be black, white or any one of a variety of colors, and the pneumatic press operated to make the impression (Fig. 5). Special dual controls are a safety feature of the press. The operator must use both hands to

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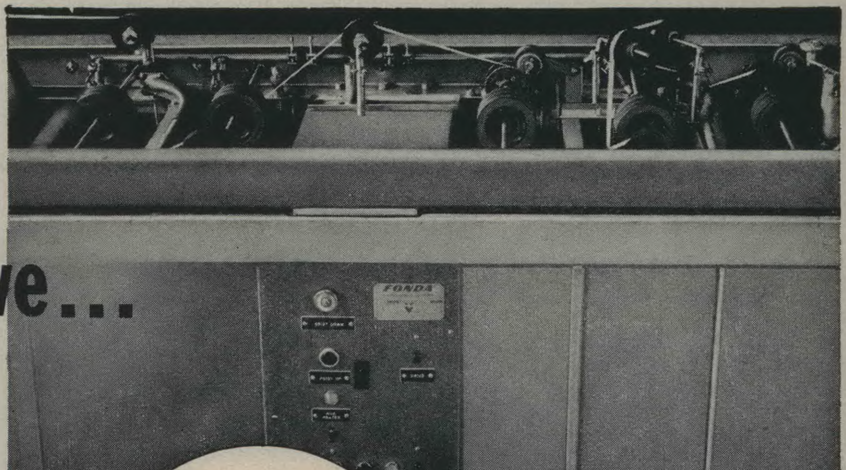

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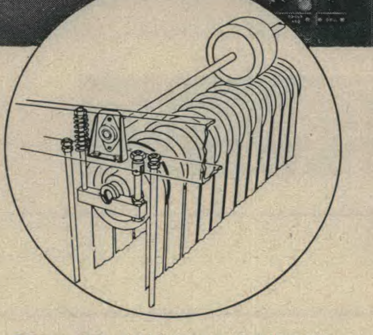

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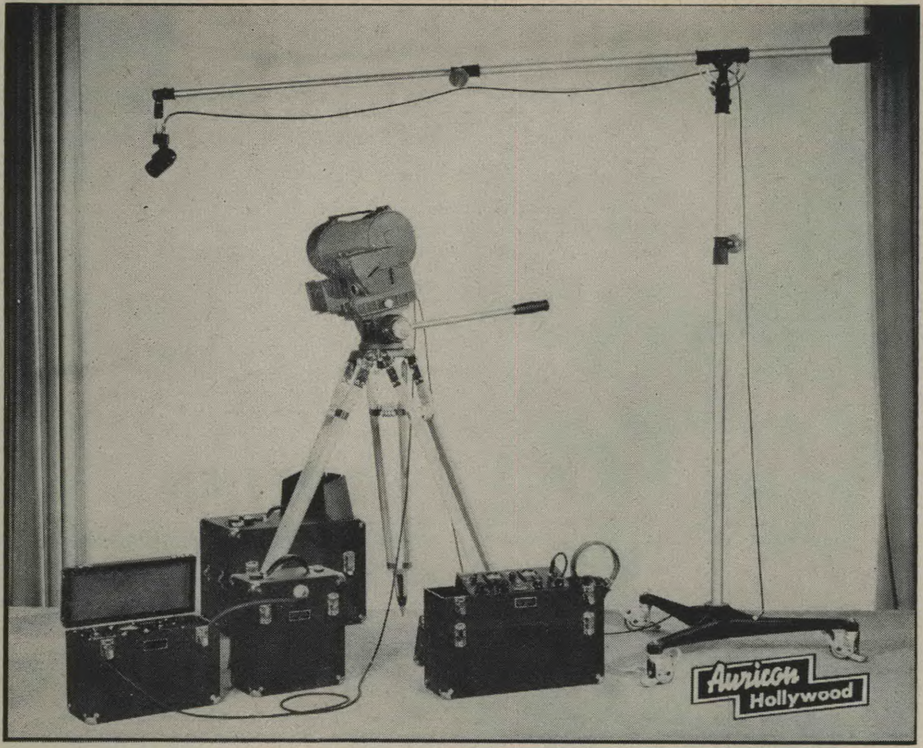

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work the levers that control it, thus insuring against accidental crushing of hands or fingers.

The printed title card then goes to Telefilm's camera room to be photographed (Fig 6), and here is found another exclusive setup, the product of Telefilm's engineering staff. The titler was designed and constructed with speedy production the prime objective. Once the title card has been mounted on the title board, the cameraman never has to leave his position behind the camera. Special finger tip controls and motor drives enable him to line up the title card and center it with the camera, then light it and photograph it simply by operating a bank of pushbuttons on a panel attached to the camera base.

Photoflood lamps, mounted in reflectors in groups of three at either side of the camera, furnish the illumination. The current supply is carefully controlled to insure consistent 3200° K color temperature for Kodachrome titles.

A standard Maurer camera is used. This is mounted on a substantial base opposite the title board. There are fine screw adjustments on this base, permitting vertical correction of the camera when necessary.

The title board is electrically controlled, both horizontally and vertically, and there is an additional motor drive to move it toward or away from the camera —all of which is regulated by the push button controls at the camera. Thus it may be seen that the camera operator's task is greatly simplified, with the result that more titles can be turned out within a given time with practically no retakes necessary.

Not only are the titles printed and photographed on the premises, but are developed there, too. Thus Telefilm's title department can complete a 16mm. title job in the short space of two hours, should circumstances demand it. This speedy service is particularly attractive to producers of television newsreels and commercial spot announcements where speed is of vital importance.

One title or a hundred, a rush job or a leisurely one, the photographic quality remains the same—all because of the specialized routine and precision equipment provided by Telefilm's engineering staff.

SOUTH SEAS SAGA

(Continued from Page 20)

chrome film I shot indicated the necessity of setting a definite time for shooting pictures in the future, and I wisely decided to halt all filming each day after ten in the morning.

Shooting a carefully planned native

fishing sequence on one of the coral reefs presented many obstacles. First it meant catching the low tide, with the reefs more or less high and dry. This condition occurred about every three weeks at which time the most ideal filming conditions lasted but three days at most. More often than not, when ideal weather and sea conditions did prevail, there was no fishing going on—the natives being elsewhere or engaged in other pursuits.

On another occasion, after driving half the night in a jeep over rough roads not much more than cow paths, I reached a remote beach. Here I was to pack my gear into four dugout outrigger canoes for a trip to a small "motu," or island, to shoot pictures of native divers. We were doomed to disappointment, however, for when we reached the island, the weather was bad and photography had to be abandoned. Eventually, after making five attempts, the desired sequence was filmed —all 250 feet of it.

Some of my most startling experiences took place on the coral atoll of Tubai, twenty miles northwest of Bora Bora. Here our boat, an inter-island vessel dropped anchor about daybreak—just one hundred yards from the edge of the shore reef. Over the side went double-ender whale boats carrying my cameras and gear and myself, each boat skippered by a skilled native oarsman. Carefully maneuvering the boats in relation to tide, we shot with incredible speed through a narrow, treacherous pass in the reef. The comer behind picked up our craft as though it were a chip on a wave, and sent it sailing swiftly shoreward. A slight miscalculation here by the skipper probably would have spelled finis for this South Seas filming adventure.

Subsequently I set up my camera on the edge of the reef—about seventy-five feet from the open sea—and filmed the whale boats as they negotiated the pass from ship to shore, and back again. Even with my tripod extended its maximum of five feet in height, it was not unusual for the foaming comers to reach nearly to the top of the tripod head, threatening to engulf my camera. For safety, I had three natives stand by while I made the shots, to brace both me and my camera as the comers rolled in. It would have been easier to setup farther back and use a telephoto lens, but then I would have sacrificed the thrilling results of undistorted closeup action shots of the boats battling the sea.

On shore, another problem presented itself: the beach consisted of fine white coral sand which gave an excessive meter reading, no matter in which direction I pointed it. Even a reading taken of the back of my hand indicated a stop of f/16 at 24 f.p.s. I had to be absolutely sure, of exposure for here was interesting shooting and I could not return for retakes.

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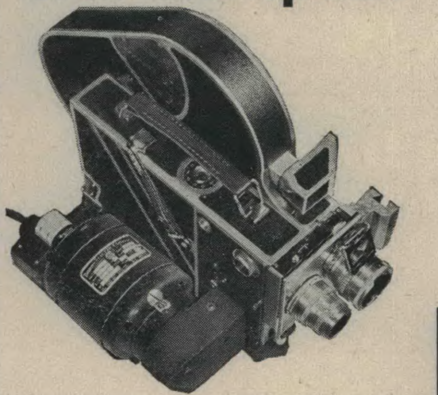

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Finally, I compromised on a reading taken of the darkest blue sky area with the sun at my back. The meter indicated a stop of f/11. To allow for any possible error, I opened up "just a hair" from this point and shot. After the film was processed in Honolulu and returned to me, I breathed easier for the exposures turned out perfect.

A trading schooner voyage to the famed Marquesas islands presented another rare opportunity for picture material. I had come along to photograph a phase of island life common in the South Seas for centuries. The boats plying between the islands carried strange cargoes indeed. Passengers and cargo mingled together and much of this cargo invariably was livestock—sheep, goats, hogs, chickens, and not infrequently horses. Such items are exchanged in the Marquesas islands for copra which in turn is brought to Papeete and thence transported to the mainlands by steamer.

Harbors are practically nonexistant in the islands, and transfer of cargo and the loading of new is done by small boats. Here again we encountered the thrilling sight of native boys skillfully maneuvering boats through narrow channels in the reefs. I had to be alert with my camera every minute. On one occasion I watched heavy surf swamp a whaleboat. There wasn't time to rewind my camera; the lens had been pre-set for just such incidents. Presently the boat was completely lost from view, only to bob up again. A wall of water broke over the boat once more and men, oars and copera bags were tossed into the sea as the boat capsized—just as my camera motor spring expended itself.

When going ashore in such treacherous waters, I make it a point never to place "all my eggs in one basket." I allowed only one camera to a boat. The cameras were first placed in watertight containers and sealed, allowing only sufficient air within to insure boyancy should they fall into the sea. Such precautions saved my photographic equipment from disaster on several occasions. One morning my Cine Special had gone on ahead in the first boat. I followed in the second, with other cameras and equipment. The first boat capsized as it approached shore and within seconds my Cine Special in its sealed container was bobbing safely in the surf. In a short time it drifted to shore and was retrieved.

Special precautions were taken at all times for the preservation of my Kodachrome film supply. The silica gel was used to desicate or remove any tropic moisture from both exposed and unexposed films. It is interesting to mention that ninety per cent of my Kodachrome footage had been exposed for at least four months before being processed in Honolulu, without adverse effect from tropic heat or moisture.

Like many another traveler who has visited the South Seas, I'm getting itchy feet again. Time has little meaning in the islands. Palm trees outside one's cabin door rustle gently in the breeze, and the lagoon just off the doorstep invites a delightful swim at any hour. At the slightest provocation, a native dance will begin and continue for hours. But most of all the inexhaustible photographic possibilities are a constant urge to return again to get on film all those thrilling sights and experiences that limited film precluded on my initial visit to Tahiti.

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COLOR

(Continued from Page 13)

mitted by the filter.

The length of a single wave of visible radiation is exceedingly small, so that, to avoid the difficulty or awkwardness of thinking and speaking in such small figures, wavelength is customarily expressed in millimicrons or in Angstroem units.

1 millimicron = .000001 mm
1 Angstroem unit=.0000001 mm

The visible range of the spectrum reaches accordingly from:

400 to 700 millimicrons
4,000 to 7,000 Angstroem units

In the additive process of color reproduction the individual print from each of the color separation negatives is illuminated in projection by light identical in color composition to that transmitted by the corresponding primary exposing filter. The print itself is black-and-white and the different densities merely modulate the amount of colored light passing through the silver image. This modulated light from each print is superimposed and additively mixed on the screen. Black is, therefore, obtained where all three colored light sources are presented from reaching the screen by heavy, opaque silver deposits. White is obtained when all three colored light bundles reach the screen in equal intensities.

In the subtractive process of color reproduction the individual prints (or print layers) of each of the color separation negatives are dyed in their respective complementary colors and superimposed upon each other prior to projection. This combined, multiple-dyed print is then projected on the screen with white light. Since, in this instance, each dyed component absorbs its complementary part of the all-color mixture of the white light, it follows that this type of projection is subtractive, which means that, where no dye interferes with the projected white light, the screen reflects white; where all three dyes interfere in equivalent densities the screen will be black, since all components of the white light are absorbed and prevented from being transmitted through the film on to the screen.

The field of measuring colors is called colorimetery. One of its more recent endeavors concerns the systematic determination and classification of colors on the basis of measurable and reproducible units or factors. It establishes for this purpose numerical values for three specific attributes of colors which determine qualitatively and quantitatively their relations and differences. These attributes are, in the order of their importance, hue, sensation and brightness.

Color in Hue: The hue of a color is identified by its wavelength or its position relative to the spectral band of visible radiation, which reaches approximately from 400 to 700 millimicrons and, when thought of as a continuous band, must consist of an infinite number of different hues. The human eye can, at best distinguish about 200 hues, so that we may say that our eye can see a difference in two colors as long as the difference in their hue it not less than 1.5 millimicrons.

Color Saturation: This attribute of color is an indicator of its purity. A dye of spectral purity would have 100% saturation. White has zero saturation. The amount of dilution with white determines, therefore, the degree of saturation of any color of a given hue.

Color Brightness: Colors possessing identical hue and saturation may still differ in brightness. While hue and saturation are attributes which permit the qualitative determination and comparison of colors, brightness is a comparative quantitative characteristic of color, giving expression to how a color affects our sensation as being more or less bright.

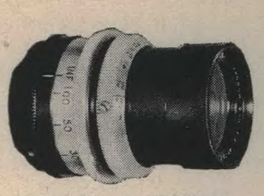
All three attributes, hue, saturation and brightness, are to be thought of as purely mental phenomena and not as physical characteristics. They are mental variables related to the variations in the physical stimulus caused by light of changing spectral composition entering the eye.

General Comparison of Photographic Color Processes: Numerous methods have been devised and suggested, using either the additive or subtractive principle to photographically obtain color reproductions. Of those actually in use at present for motion picture production, the subtractive method is practically favored to exclusion. The additive process, while much simpler in processing and less complex in the synthesis phase, presents two obstacles which have, unfortunately, prevented its wider adoption for practical use. These are the necessity of having to use auxiliary optical elements in projection and the low light efficiency in projecting the prints through filters and superimposing devices.

The comparative shortcomings of the subtractive processes are to be seen in the complexity of making superimposed color prints and in the fact that the complementary dyes required, particularly cyan and magenta, have so far not been produced with satisfactory selective transmission characteristics.

The technical development of color processes has been in the past, and may continue to be, mainly along the line of slow and steady progress in perfecting rather early conceived principal methods, as may be plainly seen when studying the history of the Technicolor process.

The relentless efforts made in improving and simplifying the technique of photographic color processes for motion



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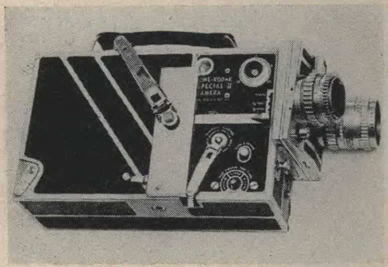

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picture production, will, no doubt, bring about a time when color photography is standardized to a degree comparable with present black-and-white photography. It offers, however, a relatively new and very large field to any progressive cameraman in the study of its psychophysical and psychological phases. Those who are responsibly concerned with the photographic reproduction of motion pictures in color should find a wealth of interesting knowledge and yet unsolved problems in the recently published book of Ralph M. Evans, "An Introduction to Color" (John Wiley and Sons, Incorporated, New York). It is well conceivable that lack of understanding or of knowledge of psychophysical and psychological color phenomena may soon be recognized as a greater source of reproductive failures than the shortcomings traceable to purely physical phases of the specific color process used.

We see that color as a science has a rather complex structure. In being confronted with a complex problem, we may either react to it by throwing up our hands and turning our backs, or we may become fascinated. Either attitude is understandable and justified as long as one has his choice. The professional cinematographer today is faced with a public demand and commercial orders asking that he provide pictorial records in actual colors and it seems, therefore. that he had better attempt to feel highly fascinated by the problem of color.

MAGNETIC RECORDER

(Continued from Page 14)

therefore Roos insists that all mechanical parts of the Hallen recorder be precision made—all shafts and gears hardened, ground and lapped. All parts which come in contact with the coated film are made of non-magnetic stainless steel.

Roos states that economy in production of the recorder results from adopting war time measures of the aircraft industry, which let out its precision machine parts manufacturing to small, dependable machine shops with skilled staffs expertly supervised. Most of the parts for the Hallen recorder are being manufactured by these same machine shops, which are located in the Burbank area as a result of the heavy concentration of motion picture and aircraft industries there. The parts are then assembled in the Hallen factory on West Olive street in Burbank.

The recorder's amplifiers are also built and tested outside the Hallen assembly plant in a well known laboratory headed by three of the West's outstanding electronics engineers. This laboratory has every known type of electronics testing equipment and is responsible for the high degree of recording perfection attained by the Hallen recorder. For instance, the quality of the sound is such that there is virtually no loss in re-recording to film. Range of the amplifier is 40 to 10,500 cycles, plus or minus 2db. Sound experts have stated that the recorder has the highest degree of "presence" of any magnetic recorder tested thus far.

Roos built and discarded at least fifteen differet kinds of electric motors before he found one suitable for driving the recorder. Many of the motors tested heated up excessively under prolonged use, ran at inconsistent speeds, showed marked pulsation, or lacked sufficient power. The motors now in use, according to Roos, are specially designed and built for the recorder, and are the coolest and smoothest running motors available.

Inasmuch as the mechanism of a recorder of this type must be "free running" to produce the maximum quality sound, the matter of lubrication came in for particular attention. Roos tested more than 20 different lubricants for the motor gear box before one was found that would perform perfectly under all weather conditions. The gears now run in a sealed bath of oil which is unaffected by extremes in temperature.

On the electronics side, the shielding of the recording and pickup heads at first posed quite a problem. This was finally licked, however, by using the new Mu metal annealed in hydrogen. Dubbing heads are now being prepared and soon will be available, making it possible to mix voice, music and sound effects on the one sound track.

The recorder is made for use with standard 110-115 volt A.C. current. However, to facilitate use of the recorder in any location and in any place in the world, the Hallen Corporation makes available on special order a portable, battery-driven power supply capable of driving a Mitchell camera and the recorder simultaneously in sync. So that the recorder may be used in countries where 220 volt circuits are standard, a step-down transformer is available reducing the 220 volt source to 110.

Len Roos, who has been a member of the American Society of Cinematographers for 25 years, and one of the few cinematographers who is also a Fellow in the Royal Photographic Society, has probably devoted more study and experimentation to sound, as applied to motion pictures, than any other cinematographic specialist. As a motion picture photographer, he is in an ideal position to know the specific sound recording needs of the movie maker; as a sound specialist, he has the benefit of the cinematographer's viewpoint. Thus he was able to develop to perfection a magnetic recorder peculiarly adapted to the needs of the film maker at a time when the advantages of magnetic recording is just beginning to be appreciated by producers of films for television, as well as those who make films for theatrical distribution. The Hallen recorder, however, is not limited to the motion picture field, although it was engineered especially for it. Its absolute synchronous mechanism also makes it ideal for radio and delayed broadcasts, and its generous film width makes it especially favorable for radio program production because of the ease in editing that the wider tape affords.

Also in production by Hallen Corporation is a recorder using quarter-inch oxide coated tape. This machine, as well as the 17½mm. film recorder, is available for demonstration at the Hallen showrooms in Burbank.

CHANGING TRENDS

(Continued from Page 11)

ress—but many others have been purely artistic, and have resulted from the ever-present desire of cameramen to find more dramatic and more interesting ways to tell the screen story.

One of the most basic steps forward was the introduction of camera movement as basic technique. Hitherto, the camera had been a static spectator and the action had to be staged in a stilted manner in order to stay within the rigid limits of the camera angle. It was when the camera itself began to move that motion pictures really became moving pictures.

Many of the new techniques, when first discovered, were overdone. Diffusion, for example, was carried to fantastic lengths in the enthusiasm that followed the discovery that a bit of gauze over the lens could make a grandma look like an ingenue. For a while everything and everybody was diffused, and heroines became so ethereal that they appeared to have been spun out of ectoplasm. But the cameramen had their fling and then learned how to really use diffusion. Today, diffusion is still very much a part of cinematography, but it is so subtly and so perfectly applied that it adds a great deal to a photoplay without being theatrical.

A constant challenge to the cameramen has been the various "cycles" of motion picture subject matter which the studios have had to concentrate upon from time to time in order to satisfy the mercurial preferences of the movie-going public. There was the slapstick or Mack Sennett cycle, the Western cycle, the gangster cycle, and many others. The phenomenal success of "Gone With the Wind" started a cycle of historical epic dramas in photography form which included "Forever Amber," "The Foxes of Harrow," "Captain From Castile," and "Prince of Foxes" (which is currently being photographed in Italy by Leon Shamroy, A.S.C.).

We are just now emerging from a whole series of psychological films, many of which featured really inspired photography. Notable among these are "Spellbound," "The Lost Weekend," "Nightmare Alley," and "The Snake Pit." "Duel in the Sun" signaled the start of a new cycle, the epic Western—and as a result we will see in the coming year such outdoor sagas as "Red River," "Blood on the Moon," "Yellow Sky," and "Whispering Smith." All of these films, plus several others now in production, are Westerns only in the sense that the action takes place in Western locales and feature characters in boots and Stetsons. They are, in terms of production value, a far cry from the "shoot 'em up" that is greeted with whistles and the crunch of popcorn by Saturday afternoon juvenile audiences. The photography in these erstwhile cow-operas is unusually artistic.

Through all of these various cycles of entertainment preference, the Director of Photography has had to adapt and re-adapt his basic photographic techniques to complement as closely as possible the mood and story requirements of each type of film. He has no one set style, for the style must change with the artistic requirements of each individual script. In the historical film the cameraman must suggest the glamour of a bygone age, while still retaining an atmosphere of reality. In the psychological film he is called upon to make his camera subjective—virtually to crawl inside a character's mind and provide a window for the whirling emotions imprisoned there. In the super-western it is his job to make the scenery look pictorial and the characters virile. He must bring all outdoors into the theatre, without letting the scenery overwhelm the action.

The present trend in cinematography is toward greater realism. The documentary technique has been used with poignant effect in films like "13 Rue Madeleine," "Call Northside 777," and "Naked City." All of these possess a documentary quality, but they also have a technical smoothness that is the result of many years of studio experience on the part of the cameraman. Several pictures, notably "Street With No Name" and "Johnny Belinda," were shot partially in actual locations and partially in the studio. It is a tribute to the Director of Photography on such films that it is impossible to tell where the location footage leaves off and the studio footage begins.

The demand for more realistic backgrounds has taken Hollywood camera crews to some far-flung locations. "A Foreign Affair" and "Berlin Express" were shot mainly in Germany. "The Search" was filmed in Czechoslovakia. At the moment, Stanley Cortez, A.S.C., is shooting "Man on the Eiffel Tower" in Paris; Russell Harlan, A.S.C., is filming "I Was a Male War Bride" in Germany; and Jack Cardiff, A.S.C., is shooting Alfred Hitchcock's "Under Capricorn" in England.

This sort of location filming is a good thing for the industry because it adds an authenticity that only realistic backgrounds can provide. Another healthy trend in cinematography is the gradual adoption by a majority of cameramen of

(Continued on Next Page)

THE CARE AND PRESERVATION OF LENSES

(Reprinted from the American Cinematographers' Handbook and Reference Guide, written and compiled by Jackson J. Rose, A.S.C.)

A PHOTOGRAPHIC lens is a precise optical instrument, and will provide a life-time of useful service, but one must observe commonsense precaution in its handling.

Do not wipe lenses carelessly with any available rag, handkerchief or tissue paper. For the removing of dust, grit, sand, etc., brush lenses with a fine camel's hair brush. Never touch the glass if you can possibly avoid doing so, but handle by the mount. Should fingerprints or grease spots, nevertheless, show on the lens surface, remove them in the following manner:—

Dip a swab of well-washed linen lightly in pure grain alcohol or ether, and clean the lens gently with it. Avoid touching the lacquered metal rims or mounts in this operation, as the action of the chemicals may affect the lacquer. To polish the lens use a soft, clean, lintless cloth or specially prepared lens tissue.

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BULLETIN BOARD

(Continued from Page 4)

ster's "Behind the Lens" radio program dealing with photography as a hobby and originating on KNX, Hollywood. DuPont's "Cavalcade of America" program for September 20th paid tribute to the cinematographic artistry of Joseph Biroc, A.S.C., Similar accolade for Nick Musuraca. A.S.C. was tired by DuPont on an earlier program.

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CURRENT ASSIGNMENTS

(Continued from Page 6)

- IRVING GLASSBERG, "Arctic Manhunt," with Mikel Conrad and Carol Thurston. Ewing Scott, director.
- RUSSELL METTY, "The Lady Gambles," with Barbara Stanwyck and Robert Preston. Michael Gordon, director.
- WILLIAM DANIELS, "Illegal Entry," with Howard Duff, Marta Toren and George Brent. Frederick deCordova, director.
- IRVING GLASSBERG, "Yes Sir, That's My Baby!" with Donald O'Connor and Gloria DeHaven. George Sherman, director.

Warner Brothers

- ELWOOD BREDELL, "Happy Times," (Technicolor) with Danny Kaye and Barbara Bates. Henry Koster, director.
- WILFRID CLINE and BOB BURKS, "Task Force," with Gary Cooper, Wayne Morris and Julie Brennan. Delmar Daves, director.

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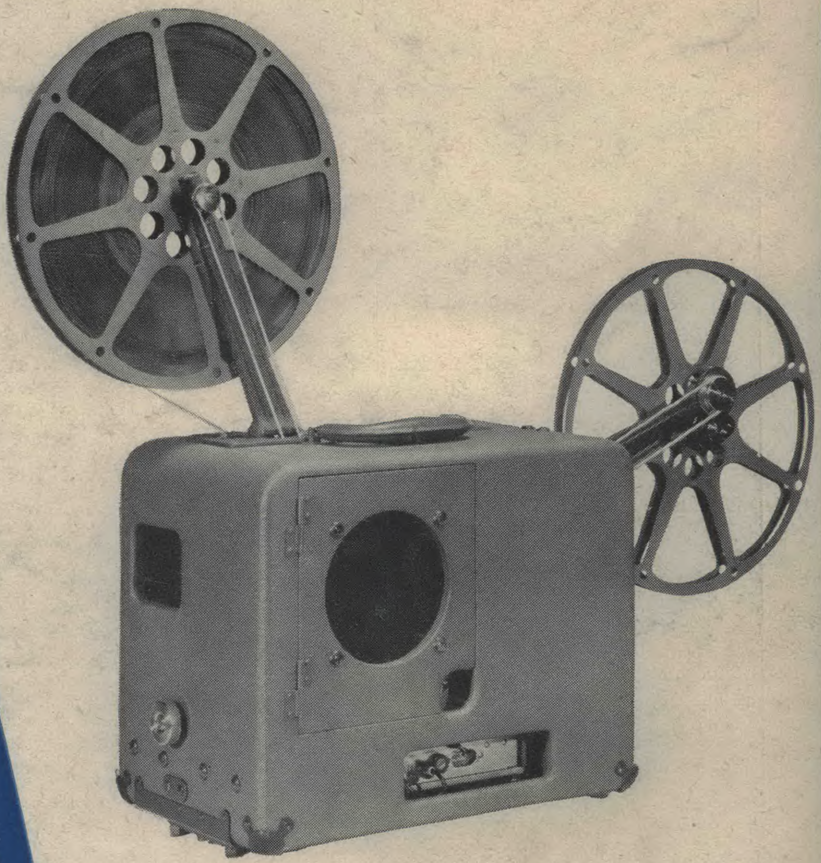

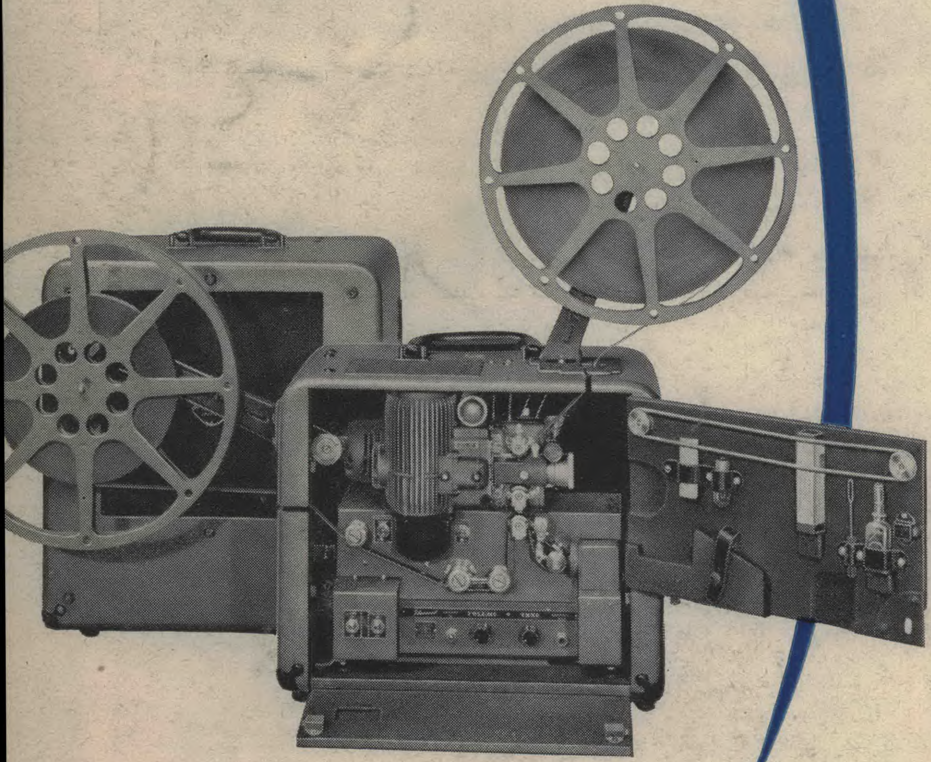

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